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Registered as a Newspaper.
Published Weekly at 42 CANNON STREET,
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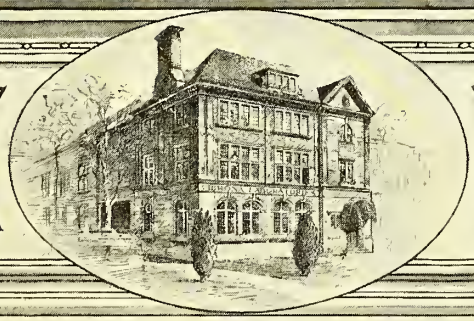

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Möller, Peter, Ltd.
Sparks, White & Co., Ltd.
Wright, Layman & Umney, Ltd.

COLLAPSIBLE TUBES
Betts & Co., Ltd.

COMBS
Galen Mnfg. Co., Ltd.
Gripwell
Hovenden, R., & Sons, Ltd.

CONDENSERS
Bennett, Sons & Shears, Ltd.

CONFECTIONERY COLOURS
Bush, W. J., & Co., Ltd.

CONFECTIONERY, MEDICATED
Guest, Thos., & Co.
Pascall, James, Ltd.

CONTINENTAL PROPS.
Bresillon, M., & Co.
Kopp & Joseph
Roberts & Co.
Schacht, Warner & Co.
Wilcox, Jozeau & Co.

CORKS
Mitchell, N. W., & Sons, Ltd.

CORN EXTERMINATOR
Gardner

CORN PLASTERS
Beiersdorf, P., & Co.
Solport Bros.

CORRUGATED PAPER
Brightling, Geo. C., & Co., Ltd.

COUNTER ADJUNCTS
Evans Sons Lescher & Webb, Ltd

COUNTER SPECIALITIES
Allen & Hanburys, Ltd.
British Drug Houses, Ltd., The
Burgoyne, Burbidges & Co.
Hewlett, C. J., & Sons, Ltd.
Wright, Layman & Umney, Ltd.

COUNTING AND FILLING MACHINE
Forgrove Machinery Co., Ltd.

COURT PLASTER
Solport Bros.

CREOSOTE
Baiss Bros. & Stevenson, Ltd.

CREPE BANDAGES
Gimber, W., & Son
Burge, Warren & Ridgley, Ltd.
Leslies, Ltd.
Norwich Crepe Co. (1856), Ltd.
Wood, Vincent

CYANIDES
May & Baker, Ltd.

DAIRY SPECIALITIES
Fullwood, R. J., & Bland
Oldfield, Pattinson & Co.

DENTAL MECHANICS
Ainslie & Co.
Carron & Co.
Fentiman, A. G.
Fentiman, A. J., & Co.
Halder, E. C.
Wardale, F. C., & Co.

DENTIFRICES
Beecham, T.
Bell (John), Hills & Lucas, Ltd.
Berliner, Arthur
Blackie, Robert
Christy, T., & Co.
Cook, E., & Co., Ltd.
Cox, Arthur H., & Co., Ltd.
Enoryl, Ltd.
Jewsbury & Brown
McKesson & Robbins
Maw, S., Son & Sons
Newbery, F., & Sons, Ltd.
Odol Chemical Works
Parke, Davis & Co.
Sangers
Standard Tablet & Pill Co., Ltd.
Woolley, J., Sons & Co., Ltd.

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Claughtons, Ltd.
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Evans Sons Lescher & Webb, Ltd.
Express Developing Co.
Johnson & Sons (Mfg. Chts.)

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Fink, F., & Co.

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Van Abbot, G., & Sons

DIGESTIVE PRODUCTS
Fairchild Bros. & Foster

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Baiss Bros & Stevenson, Ltd.
Chemical Union, Ltd.
Condy & Mitchell, Ltd.
Cook, E., & Co., Ltd.
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Sanitas Co., Ltd.
Willows, Francis B. & T.
Wright, Layman & Umney, Ltd.

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Gathergoods Exor.
Goodall, Backhouse & Co.
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Schmitt & Wildenhayn

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Barclay & Sons, Ltd.
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Brook, Parker & Co., Ltd.
Brytetele Manfg. Co.
Burge, Warren & Ridgley, Ltd.
Edwards, W., & Son
Evans Sons Lescher & Webb, Ltd
Hovenden, R., & Sons, Ltd.
Maw, S., Son & Sons
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Poths, H., & Co.
Quelch, H. C., & Co.
Sangers
Schutze, F., & Co., Ltd.
Solport Bros.
Swales, Thomas
Toogood, W., Ltd.
Wattenbach, O.
Woolley, J., Sons & Co., Ltd.

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Fulham Pottery & Cheavin Filter Co., Ltd.

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Bronnley, H., & Co., Ltd.
Farina, J. M.
Farina, J. M. (No. 4)
Fickus, Courtenay & Co.
McCracken, J. & R.
Schutze, F., & Co., Ltd.

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Birmingham & Midland College
Borough Polytechnic
Charleston, J.
Chemists' Dental Society
City of London College
College of Preceptors
Elt's College
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Liverpool School of Pharmacy
London College of Pharmacy
North of England School
Northern College of Pharmacy
South of England College
Westminster College

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Ayrton, Saunders & Co., Ltd.
Bishop, Alfred, Ltd.
Bristol-Myers Co.
Cupal, Ltd.
Evans Sons Lescher & Webb, Ltd
Guest, Thos., & Co.
Kerfoot, Thos & Co.
Potter & Clarke, Ltd.
Reade Bros. & Co., Ltd.
Wright, Layman & Umney, Ltd.
Wyleys, Ltd.

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MacLennan, John, & Co.

ELASTIC HOSIERY
Ayrton, Saunders & Co., Ltd.
Burge, Warren & Ridgley, Ltd.
Haywood, J. H., Ltd.
Maw, S., Son & Sons
Wood, Vincent

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Wright, Archibald J., Ltd.

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Oakey, J., & Sons, Ltd.

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British Drug Houses, Ltd.
Ovoleo Drug Co.
Parke, Davis & Co.
Scott & Bowne, Ltd.
Stevenson, H. E., & Co.

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Warne, W., & Co., Ltd.

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Newball & Mason
Stevenson & Howell, Ltd.

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White, A., & Sons

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British Drug Houses, Ltd., The
Stevenson, H. E., & Co.
Tasmanian Eucalyptus Oil Co., Ltd.

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Third Hand Patents, Ltd.

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Roberts' Pat. Filling Machine Co

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Berkefeld Filter Co., Ltd.

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Willowe, Francis B. & T.
Woolley, Jas Sons & Co., Ltd.

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Mumford, G. S., & Sons

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Skegg & Co.

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Willowe, Francis B. & T.

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Hardy Pat. Pick Co., Ltd.

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Kidston, W. M., & Co.

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Knox Walker, J., & Co., Ltd.

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Harrison, G. W.
Knoll & Co.
Osborne, Garrett & Co.
Robare's Anreoline
Tokalon Ltd.

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Crewe & Co.

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Senier, Alfred, & Co.

HAT DYES
Whitaker & Co.

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Leath & Ross

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Schutze, F., & Co., Ltd.
Toogood, William, Ltd.
Wood, Vincent

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Ichthyol Gesellschaft

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Keating, Thomas
Potter & Clarke, Ltd.

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Guest, Thos., & Co.
Potter & Clarke, Ltd.

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Armour & Co., Ltd.
Lorimer-Marshall, Ltd.

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LARD
Ewen, J., & Sons

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Jakson, John, & Co.

LAVENDER WATER
Bush, W. J., & Co., Ltd.

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Chem Works "Victoria"

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Idris & Co., Ltd.

LINSEED, CRUSHED, &c.
Mumford, G. S., & Sons

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Maw, S., Son & Sons
Robinson & Sons, Ltd.
Taylor, W. G.
Vernon & Co., Ltd.

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Apollo
Burgoyne, Burbidges & Co.
Evans Sons Lescher & Webb, Ltd.
Jackson, E. E.
Mumford, G. S., & Sons
Solazzi

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May & Baker, Ltd.

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Internl. Sponge Importers, Ltd.
Solport Bros.
Swales, Thomas

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Denoual, Jules, & Co.
Guest, Thos., & Co.
Jackson, E. E.
Potter & Clarke, Ltd.
Raimes & Co.
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Stokes, F. J., Machine Co.
Thompson & Capper, Ltd.
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Boulton Macro, Ltd.
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Burroughs Wellcome & Co.
Corbyn, Stacey & Co., Ltd.
Davies, Sons & Co.
Evans Sons Lescher & Webb, Ltd
Pascall, James, Ltd.
Paine & Co., Ltd.

MANICURE SETS
Maw, S., Son & Sons

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Preston's Liverpool Distillery
Randall & Son, Ltd.

MILK SUGAR
Hollandsche Melksuikerfabriek

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Apollinaris Co., Ltd.
Ingram & Royle, Ltd.
Vichy (State Springs)
Vittel

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Chemische Werke Roermond

MUSTARD PLASTER
Blyton, Astley & Co.
Rueff, Julius

MUSTARD SEED OIL
Johnson, J. H. & S.

NAIL POLISH PAPER, &c.
Pharm. Ind Ges. Offenbach

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Price's Patent Candle Co., Ltd.

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Bush, W. J., & Co., Ltd.
Dodge & Olcott Co.
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Poppelreuter, W.
Ransom, W., & Son, Ltd.
Schimmel & Co.
Stevenson & Howell, Ltd.
Wright, Layman & Umney, Ltd.
Zimmerman, Chas., & Co.

OILS, MINERAL, FATTY, &c.
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OINTMENTS
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Oldfield, Pattinson & Co.
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Spectacle Makers Company

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Cupal, Ltd.
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Sangers
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Ucal Works

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Blyton, Astley & Co.
Burroughs Wellcome & Co.
Evans Sons Lescher & Webb, Ltd
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Guest, Thos., & Co.
Kerfoot, Thomas, & Co.
Warrick Bros., Ltd.

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Blyton, Astley & Co.

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Dodge & Olcott Co.
Jakson, John, & Co.

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Prescott & Co.

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Givaudan, L.
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Christy, T., & Co.
Erasmic Co., Ltd.
Evans Sons Lescher & Webb, Ltd
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Southall Bros. & Barclay, Ltd.
Vinolia Co., Ltd.
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Rendell, W. J.

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Kideton, W. M., & Co.
Stern Sonneborn Oil Co., Ltd.

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Kent, G. B., & Sons, Ltd.
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Rajar, Ltd.

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Standard Tablet & Pill Co., Ltd.
Stohr, Dr. Franz, Ltd.
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Beiersdorf, P., & Co.
Berliner, Arthur
Blyton, Astley & Co.
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Corbyn, Stacey & Co., Ltd.
Crimson Cross Dispensary
Cupal, Ltd.
Daisy, Ltd.
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Ichthyol Gesellschaft
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London Proprietary Co.
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Möller, Peter, Ltd.
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Oppenheimer, Son & Co., Ltd.
Ovoleo Drug Co.
Owbridge, W. T., Ltd.
Parker, Belmont & Co.
Payne, H. C.
Phillips, Chas. H., Chem. Co
Pinex Co., Ltd.
Primer, J.
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Sangers
Schimmel & Co.
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Thermogene Co., Ltd.
Thompson & Capper
Tokalon, Ltd.
Tozer, Jas. V.
Tunbridge & Wright
Veno Drug Co., Ltd.
Warrick Bros., Ltd.
White, A. J., Ltd.
Wilcox, Jozeau & Co.
Woodward, W., Ltd
Wright, Layman & Umney, Ltd.
Zimmermann, O., & Co.

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Solport Bros.

PUMPS
Berkefeld Filter Co., Ltd

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Boehringer, C. F., & Soehne
Buchler & Co.
Corbyn, Stacey & Co., Ltd.
Howards & Sons, Ltd.

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Zimmer & Co.

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Haywood, J. H., Ltd.
Maw, S., Son & Sons
Warne, W., & Co., Ltd.

RUBBER STAMPS
Richford, C. D.

SACCHARIN
Saccharin Corporation, Ltd.

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Keane, Thomas

SANTONIN
Smith, B. A., & Co.

SAPONIN
Field, C. W.

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Tidman & Son, Ltd.

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Burroughs Wellcome & Co
Evans Sons Lescher & Webb, Ltd
Parke, Davis & Co.
Schimmel & Co.
Wilcox, Jozeau & Co.

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Standard Tablet & Pill Co., Ltd.

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Mcadam & Tucknies

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Cook, George
Evans Sons Lescher & Webb, Ltd
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Grant, D.
Josephs, Philip, & Sons, Ltd.
Maw, S., Son & Sons
Rudduck & Co.
Sangers

SHOULDER STRAPS
Wood, Vincent

SHOWCARDS
Bell Advertising Co.

SOAPS, TOILET, &c.
Allen & Hanburys, Ltd.
Armour & Co., Ltd.
Bell (John), Hills & Lucas, Ltd
Bronnley, H., & Co., Ltd.
Calvert, F. C., & Co.
Chesebrough Manfg. Co.
Christy, Thos., & Co.
Cook, E., & Co., Ltd.
Erasmic Co., Ltd.
Eucryl, Ltd.
Evans Sons Lescher & Webb, Ltd
Field, J. C. & J., Ltd.
Fulford, C. E., Ltd.
Harrison, G. W.
Hovenden, R., & Sons, Ltd.
Lescol Perfumery Co.
McClinton's, Ltd.
Pears, A. & F., Ltd.
Price's Patent Candle Co., Ltd.
Providol Gesellschaft
Resinol Chemical Co.
Wright, Layman & Umney, Ltd

SOAP-MAKING PLANT
Forshaw, E., & Son, Ltd.

SODA FOUNTAINS
Flugel & Co.

SODIUM BICARBONATE
Brunner, Mond & Co., Ltd.
Howards & Sons, Ltd.
Mumford, G. S., & Sons

SOOTHERS
Newbery, F., & Sons, Ltd.
Schutte, F., & Co., Ltd.

SPECTACLES
Botwright & Grey
Darton, F., & Co.
Maw, S., Son & Sons
Nitsche & Gunther Opt. Co.,Ltd.

SPERMACETI
Price's Patent Candle Co., Ltd.

SPHYGMOMETERS
Hicks, James J.

SPICES
Goodall, Backhouse & Co.

SPIRIT OF WINE
Burrough, J., Ltd.
Preston's Liverpool Distillery Co., Ltd.

SPONGES
Internat. Sponge Importers, Ltd.

SPRAYS.
Burge, Warren & Ridgley, Ltd.
Christy, Thos., & Co.
Hovenden, R., & Sons, Ltd.
Maw, S., Son & Sons
Parke, Davis & Co.
Sangers
Toogood, Wm., Ltd.

SPRINKLER CORKS
Betts & Co., Ltd.

SPRUCE BEER
Hobson, Joseph, & Son

STARCH
Mumford, G. S., & Sons

STILLS
Bennett, Sons & Shears, Ltd.
Forshaw, E., & Son, Ltd.
Stokes, F. J., Machine Co.

STOPPERS
Stupendum Stopper Co.

SURGICAL APPLIANCES AND DRESSINGS
Allen & Hanburys, Ltd.
Bailey, W. H., & Son, Ltd.
Berliner, Arthur
Burroughs Wellcome & Co.
Carnegie Bros.
Curson, Gerrard & Co., Ltd.
Dalmas, A. de St., & Co.
Davis, John Morgan, & Sons
Galen Manfg. Co., Ltd.
Gimber, W., & Son
Haynes, G., & Co.
Haywood, J. H., Ltd.
Liverpool Lint Co.
Macfarlan, J. F., & Co.
Martindale, W.
Mason Bros. & Chapman
Maw, S., Son & Sons
Queich, H. C., & Co.
Reynolds & Branson, Ltd.
Robinson & Sons, Ltd.
Taylor, W. G.
Van Horn & Sawtell
Warne, W., & Co., Ltd.
Wood, Vincent
Woolley, J., Sons & Co., Ltd.

SYPHON FILLER
Flugel & Co.

SYPHONS
Barnett & Foster
Camwal, Ltd.
Idris & Co., Ltd.
Pure Aeration Supply, Ltd.
Sharman's Pat. Syphon Co.,Ltd.

SYRUPS, MEDICINAL
Fellows' Med. Mnfg. Co.
Martindale, W.

TABLET MACHINERY
Allen & Hanburys, Ltd.
Bennett, Sons & Shears, Ltd.
Thompson & Capper
Wilkinson, S. W., & Co.

TABLETS, COMPRESSED
Allen & Hanburys, Ltd.
Bishop, Alfred, Ltd.
British Drug Houses, Ltd., The
Brook, Parker & Co., Ltd.
Burgoyne, Burbidges & Co.
Cartwright, W. B., Ltd.
Cox, A. H., & Co., Ltd.
Davies, Sons & Co.
Duncan, Flockhart & Co.
Evans Sons Lescher & Webb, Ltd
Guest, Thos., & Co.
Hopkin & Williams, Ltd.
Howards & Sons, Ltd.
Jackson, Ernest, & Co.
Johnson & Sons (Mfg. Chts).
Lloyd, T. H., & Co., Ltd.
Martindale, W.
Parke, Davis & Co.
Shirley Bros., Ltd.
Standard Tablet & Pill Co., Ltd.
Stohr, Dr. Franz, Ltd.
Thompson & Capper, Ltd.
Tozer, Jas. V.
Wand Manfg. Co.
Wigglesworth & Co.

"TABLOID" PRODUCTS
Burroughs Wellcome & Co.

TARTAR REMOVER
Christy, Thos., & Co.

TARTARIC ACID
Boehringer, C. H., Sohn
British Drug Houses, Ltd., The

TIME RECORDERS
Time, Ltd.

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Goodall, Backhouse & Co.
Liverpool Tin Canister Co., Ltd.
Shirley Bros., Ltd.

TINCTURES IN BOND
Macfarlan, J. F., & Co.
Ransom, W., & Son, Ltd

TINFOIL
Erhardt H., & Co., Ltd.

TOBACCO
Sangers
Singleton & Cole, Ltd.

TOILET ARTICLES
Allen & Hanburys, Ltd.
Ansora Perfumery Co.
Armour & Co., Ltd.
Ayrton, Saunders & Co., Ltd.
Beetham, M., & Son
Blackie, Robert
Bronnley, H., & Co., Ltd.
Burroughs Wellcome & Co.
Chesebrough Mnfg. Co.
Christy, T., & Co.
Cook, E., & Co., Ltd.
Cox, Arthur H., & Co., Ltd.
Daisy, Ltd
Dearborn, Ltd.
Edwards' Harlene Co.
Erasmic Co., Ltd.
Eucryl, Ltd.
Fulford, C. E., Ltd.
Harker, Stagg & Morgan, Ltd.
Hovenden, R., & Sons, Ltd.
Kopp & Joseph
Lloyd, Aimée & Co.
Lloyd, A. S. (Hovenden)
Lorimer-Marshall, Ltd.
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McClinton's, Ltd.
May, Roberts & Co., Ltd.
Newbery, F., & Sons, Ltd.
Odol Chemical Works
Osborne, Garrett & Co.
Papier Poudré, Ltd.
Parke, Davis & Co.
Pazery, Richard
Prichard & Constance, Ltd.
Providol Gesellschaft
Quelch, H. C., & Co.
Roberts & Co.
Sangers
Softo Manfg. Co.
Solport Bros.
Southall Bros. & Barclay, Ltd.
Standard Tablet & Pill Co., Ltd.
Stedman, J. H.
Tokalon, Ltd.
Ucal Works
Vinolia Co., Ltd.
Woolley J., Sons & Co., Ltd.

TOILET PAPER
Ayrton, Saunders & Co., Ltd.
Burgoyne, Burbidges & Co.
Diamond Mills Paper Co
Ford Shapland & Co.
Townsend, J., & Sons

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Ford, Shapland & Co.
Raworth, John E.

TRUSSES
Bailey, W. H. & Son, Ltd.
Bush, Henry W., & Co., Ltd.
Davis, John Morgan, & Sons
Haywood, J. H., Ltd.
Maw, S., Son & Sons
Sangers
Schutze, F., & Co., Ltd.
Wood, Vincent
Woolley, J., Sons & Co., Ltd.

TUBE-CLOSING MACHINE
Griffin, J. J., & Sons, Ltd.

TUBES, GLASS
Williams, Edmond

TURNED WOOD BOXES
Rogers & Co.

VACUUM FLASKS
Millard Bros., Ltd.
Read & Campbell, Ltd.

VACUUM PANS
Bennett, Sons & Shears, Ltd.
Stokes, F. J., Machine Co.

VALUERS
Baker, P. C.
Bergoe & Fish
Brett & Co.
Orridge & Co.
Tomlinson, T., & Son

VERMIN KILLERS
Battle, Son & Maltby
Cupal, Ltd.
Danysz Virus, Ltd.
Evans Sons Lescher & Webb, Ltd
Farmer, F., & Co.
Harley, Thomas
Harrison, G. W.
London Hygienic Chemical Co.
Sleggs & Co.

VASELINE
Chesebrough Mnfg. Co.

VETERINARY INSTRUMENTS
Mason Bros. & Chapman
Maw, S., Son & Sons

VETERINARY REMEDIES
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Christy, Thos., & Co.
Day & Sons (Crewe), Ltd.
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Harvey & Co. (Dublin)
Senier, Alf., & Co.
Tomlinson & Hayward, Ltd.
Wyleys, Ltd.
Zimmermann, C., & Co.

VINEGAR
Grimble & Co.

WATER GLASS
Tomlinson & Hayward, Ltd.

WATER STILL
Brown & Sons
Stokes, F. J., Machine Co.

WATERS, CONCENTRATED
Robinson, B., & Co., Ltd.

WAXES
Price's Pat. Candle Co., Ltd.

WEED-KILLERS
Harrison, G. W.

WINDOW FITTINGS
Ayrton-Graham, Ltd.

WINDOW TICKETS
Merten, F., & Co.

WINES
Burrough, J., Ltd.
Smith, Stephen, & Co., Ltd.

WINES, MEDICATED
Burrough, J., Ltd.
Burroughs Wellcome & Co.
Coleman & Co., Ltd
Fletcher, Fletcher & Co.
Idris & Co., Ltd.
Robinson, B., & Co., Ltd.
Smith, Stephen, & Co., Ltd.

WINES (NON-ALCOHOLIC)
Welch Grape Juice Co., Ltd.

WRIST STRAPS
Solport Bros.

ZINC OXIDE
Hubbuck, T., & Son, Ltd.
Stevenson, H. E., & Co.

ZINC SULPHIDE SCREEN
Buchler & Co.

OLDFIELD, PATTINSON & Co.

TELEGRAMS:
"OPIUM MANCHESTER."

A RELIABLE HOUSE FOR
All Pharmaceutical Preparations.
CONCENTRATED WATERS.
CONCENTRATED INFUSIONS.

B.P. Tincture. **OPIUM** Aqueous Tincture.

Syr. Glycerophosph. Co.
LIQUID EXTRACTS.
LEVIGATED OINTMENTS
ESSENTIAL OILS.

"Silver Churn" Dairy Specialities.

Special Prices to Large Buyers. Write for List.

MANCHESTER

The Tokalon Page

A Profit Talk

It has been rumoured that when a Manufacturing Chemist introduces a new line, Retailers consider they lose sales by stocking it.

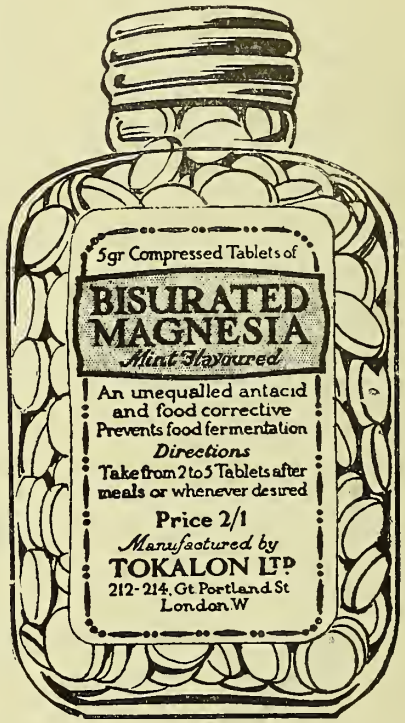
Can there be any truth in such a rumour?

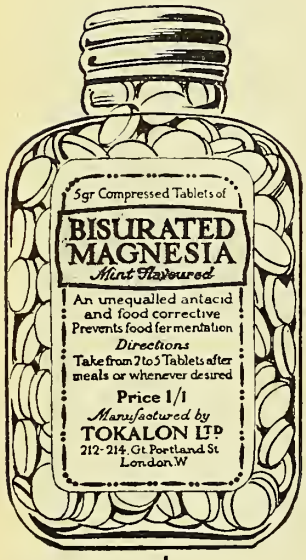
If so, then Manufacturers are cheating Retailers out of profits, and the retail trade must be decreasing! Yet in four years it has been practically doubled.

In Bisurated Magnesia we have, as a result of our Advertising, put over £30,000 into the pockets of the Retail Chemists during the past year alone; and remember that is only one line.

Had we never introduced Bisurated Magnesia, these sales would never have been made, and to create an equivalent demand in their own lines Retailers would have to spend enormous sums. So much so that half their profit, if not more, would be entirely swallowed up.

On the other hand, we bear the expense of creating the demand, and the Retailer gets a good share of the profits for nothing. Surely there can be no loss on his part unless he lets his stock run too low.





Bisurated Magnesia
Mint Flavoured Tablets

We just recently introduced these tablets, and already they are becoming extremely popular. The demand is steadily increasing, and the public are appreciating their compactness and convenience.

The actual sizes are illustrated, and the small size, which retails at 1/1, holds 60 tablets: the large size, at 2/1, contains 150 tablets.

This line shows the Chemist a profit of over 33⅓ per cent. on his outlay, and as we create the demand, it will pay all our Chemist friends to co-operate with us and stock this line.

Any further particulars will gladly be supplied.

Sole Manufacturers:

Tokalon Limited

TOKALON HOUSE,
212/214 Great Portland Street,
LONDON, W.

S. MAW, SON & SONS
7 TO 12, ALDERSGATE ST.
LONDON, E.C.

Maw's Page.

No. 116 JAN. 3, 1914

MICROSCOPES
A SIDE LINE OF PROFIT.

SPLENDID SALECARDS FREE.

"See the wonders of Nature in your own home!"

What more attractive invitation could possibly be put before the youthful mind?

ATTRACT YOUNG "SCIENTISTS."

Mieroscopes hold a peculiar fascination for children, and the following three patterns are scientifie pieces of apparatus admirably adapted for the use of beginners.

THE MODELS IN DETAIL.

No. 1 (as illustrated on showcard). Pillar pattern brass Mieroscope in polished mahogany case, complete with forceps and one object, one plain slide, one eyepiece, and one objective, giving a power of 30 diameters. 4/6 each.

No. 2. Ditto, with 3 objectives, giving powers of 30, 50 and 70 diameters. 6/- each.

These three powers can be used either singly, giving a power of 30 diameters, or two can be used giving a power of 50 diameters, or if all three are in position then the full power of 70 diameters is obtained.

No. 3. Superior model brass Microscope, hinged, with focussing wheel, in polished mahogany case, 3 powers, 30, 60 and 90 diameters, accessories as above. 14/6 each.

We hold a stock of various specimens ready mounted on slides, at 2/6 per doz.

Chemists will find in Maw's Microscopes a remunerative line for the New Year.

TWO-COLOUR CARD FREE WITH ORDERS.

TELEPHONE (4 LINES)
LONDON WALL 3230
TELEGRAMS & CABLES
'ELEVEN, LONDON'
CODE. ABC (4TH & 5TH EDN)

NOTES & NEWS

Appropriately with the commencement of the New Year, we present "Maw's Page" in an improved "dress." Incidentally we are proving that advertising can be made both instructive and interesting. And we are going to endorse this claim with some fine issues during 1914.

M

Winter.—Camphor and Eucalyptus Ice. What could be more appropriate? Obtain a supply of the following now. The cold weather will *make* customers.

B888/Z. In decorated tins, 1*d.* and 2*d.*; per gross, 8/6 and 16/-. B889/Z. Ditto, in blocks wrapped in tinfoil, per doz., 2/4. B890/Z. Ditto, in 6*d.* deli jars with celluloid caps, per doz., 3/9.

A

Our "Parex" announcement of Dec. 20 has created great interest among Pharmacists. We hope to introduce some important new lines in this series at an early date. Watch "Maw's Page" for "Parex" progress.

W

This is to introduce Mr. Geo. Gregory to our friends in Africa. By the time our customers read these lines he will be among them with samples and suggestions for increased business. His visit is owing to the indisposition of our representative, Mr. Fredk. G. Lewis.

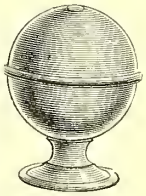
PHARMACY EQUIPMENTS

THE MAKING OF PILLS.

1885/R

During the coming months we shall present under this heading, "Pharmacy Equipments," many of our lines which go towards the making of a modern business.

The renewal of appurtenances is a necessity always arising in the Pharmacy; while for the Chemist who is starting or developing an establishment, "efficient equipments" is one of the foremost problems. This series of articles will prove helpful in either circumstances.



1887/R

Success in pill-making depends not a little on the quality of the implements employed, and the following are selected for efficiency and durability.

Pill Coater (B2461/R), Copper, 6 in. diam.... 6/- each

Pill Finishers, as illustrated (1885/R) Boxwood, double, for 1 and 2 grain, 2 and 4 grain, or 3 and 5 grain pills ... 8/- per doz.

(B2463/R) Cocking's, Brass, 6 in. diam 11/- ea.

Pill Silverer, as illustrated (1887/R), Boxwood, 16/- per doz.

Pill Machines, from 12/6 to 57/- each. (See our List, p. 387.)

Pill Piping Machine (B2471/R), for 3, 4 or 5 grains, 16/- each.

A FAMOUS ENEMA

ABOUT THE "DURBAR."

Chemists can guarantee our "Durbar" Enema to their customers for 12 months from date of supply. Yet the price is only 17/- per dozen! Seventeen shillings for twelve Enemas attractively boxed (with or without labels, as desired). Made in red rubber with velvet finish, and in black rubber with enamel finish, and each complete with elastic gum vaginal pipe and leather shield. Here, indeed, is an example of "Maw" Quality. Every "Durbar" is *English Made.*

THE "COLD SNAP."

One hundred years ago the famous frost fair was held on the Thames at London Bridge. Judging by the weather of the past few days, the elements seem to be holding a centenary celebration of the event.

Test now the selling qualities of our new "Parex" (Regd.) Rubber Water Bottles. Pharmacists unacquainted with the merits of these British made double-seamed "seasonable necessities" should write for full particulars. Prices from 2/8 to £2 each.

PARMINT

(Registered Trade Mark)

(DOUBLE STRENGTH)

The Unequalled Remedy for

COUGHS, COLDS, CATARRH, ASTHMA, BRONCHITIS and LUNG TROUBLES.

Stocked and Sold by over 7,000 of the Best Chemists in England.

Parmint has won success because it

Gives satisfaction to Customers.
Gives satisfaction to Chemists.
Is on the P.A.T.A. List.
Gives a profit of 25 per cent.
Is easy to handle.
Is always Advertised.
And is always in demand.

Price to Chemists, 24/- per dozen. **Advertised Price 2/6.**

Illustrated attractive Window Bills sent Free and Carriage Paid on request.

From any Wholesale House, or direct from—

INTERNATIONAL LABORATORIES

CARLTON HOUSE, GREAT QUEEN STREET, LONDON, W.C.

PARMINT

pays the penalty of success but wins in the long run.

In the High Court of Justice

The preparation "Parmint" was the subject of a motion in the Chancery Division on December 12, before Mr. Justice Astbury. In this action to restrain a retailer from passing off as "Parmint" a preparation which was not made by the International Laboratories, Mr. Frank Russell, K.C., said he moved against defendant in this case for an injunction to restrain the defendant from infringing a Trade Mark and passing off in regard to a certain drug which was well known in the medical world, called "Parmint." Mr. Kerly, who represented the defendant, had offered to treat the motion as the trial of the action, and to submit to a perpetual injunction. He had also agreed to pay the plaintiff's taxed costs. Mr. Kerly said the defendant had a large number of chemists' shops, and that the alleged "passing-off" took place at a branch shop of which he was not in charge. His lordship made an order granting a perpetual injunction, and defendant was ordered to pay all costs.

PARMINT HAS WON SUCCESS BECAUSE IT GIVES SATISFACTION TO CHEMIST AND CUSTOMER. IT IS ALWAYS IN DEMAND, NO TROUBLE IN HANDLING, WELL ADVERTISED, AND BEARS A PROTECTED PROFIT OF 25 PER CENT. LIBERAL BONUS ALLOWED FOR WINDOW-BILL DISPLAY.

From any Wholesale House, or from

INTERNATIONAL LABORATORIES,

CARLTON HOUSE, GREAT QUEEN ST., LONDON.

DRUGS.
CHEMICALS.
GALENICALS.

CHEMISTS'
PACKED
GOODS.

NEW YEAR 1914.

Goodall, Backhouse & Co.
send greetings and best wishes for the increased prosperity of their friends in the Drug Trade.

DRUGGISTS'
SUNDRIES.
TINCTURES and
ESSENCES (in Bond)

DRUGS and
SPICES
(GROUND in OWN MILLS)

White Horse Street, LEEDS.

1914 1914

JUST AS

these two volumes of the "Extra Pharmacopoeia" (ED. XV) are indispensable to every well-equipped Pharmacy,

SO ALSO

the Martindale products are a necessary part of the stock of every wholesaler and retailer at home and abroad.

THE BEST OF EVERYTHING TO BROTHER PHARMACISTS THIS YEAR AND YEARS TO COME.

Is your name on our mailing list for the periodical catalogues? If not, please favour us with a p.c. Have you studied carefully pages 290 & 291 of the "C. & D." Diary, 1914?

W. Martindale, 10 New Cavendish St., London, W.

THE MARK OF QUALITY FOR ANÆSTHETICS & PHARMACEUTICS OF INTERNATIONAL REPUTATION.

Ethers.
Chloroform.
Ethyl Chloride
Exact Pharmaceutical Preparations.
Organo-Therapeutical Preparations.

Heartiest Good Wishes for increased Prosperity and Happiness to all in the Drug, Chemical and Allied Trades

From

Duncan, Flockhart & Co.,
EDINBURGH,
& 143 FARRINGDON RD.,
LONDON, E.C.

See pages 248, 249, the "Chemist & Druggist" Diary.

TRADE B&B & Co MARK.

THE
MARK FOR PURE CHEMICALS

NEW YEAR 1914.

To our friends in the Drug and Chemical Trades in all parts of the world we send Greetings and Good Wishes for a new record of Prosperity in the New Year. You can rely on us to help you.

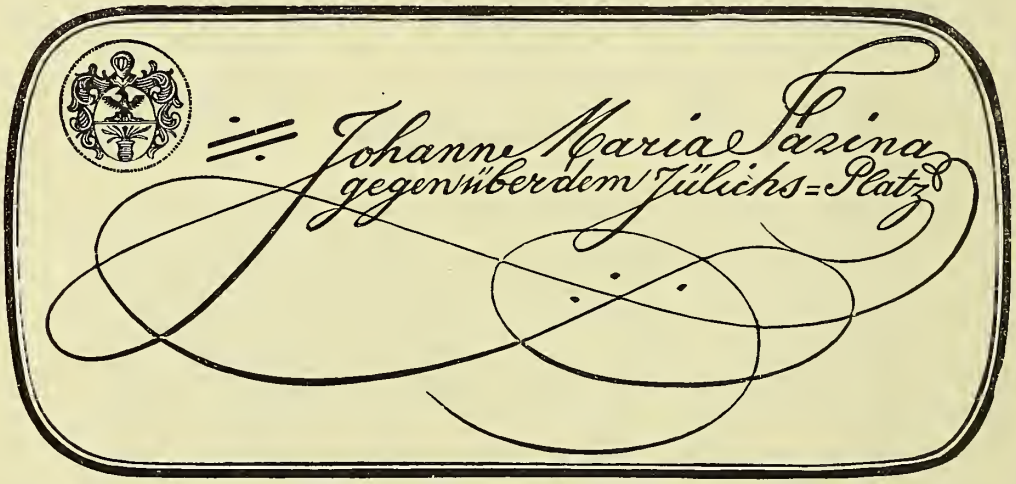
BURGOYNE, BURBIDGES & CO.,
COLEMAN ST., LONDON, E.C.

TRADE B&B & Co MARK.

THE
MARK FOR PHARMACEUTICALS

BY APPOINTMENT.

Be sure you have
"THE GENUINE"
EAU DE COLOGNE



It has been manufactured for
over 200 years by

Johann Maria Farina, Gegenüber dem Jülichs-Platz,
COLOGNE.

Greetings to Chemists the world over and Best Wishes for the New Year.

Sole Agents for the U.K. :—

J. & R. McCRACKEN, 10 Bush Lane, London, E.C.

SHOWCARDS, COUNTER CARDS, &c., on application.

EXTRACTS
SOLID AND LIQUID

Green Extracts

Standardised Extracts

Granulated Extracts

Powdered Extracts

Expressed Juices

Sal Volatile

TINCTURES
(IN BOND FOR EXPORT)

Physiologically tested Tinctures

Scammony Resin

Jalap Resin

Elaterium

Lavender and Peppermint Oils

1914

TO EXPORTERS,
WHOLESALE DRUGGISTS,
AND ALL OTHER FRIENDS

RANSOMS

SEND THEIR BEST
WISHES FOR A
PROSPEROUS
NEW YEAR

WILLIAM RANSOM & SON, LTD.
HITCHIN, nr. LONDON.

ESSENTIAL OILS

MEDICINAL ROOTS & LEAVES

PROVIDOL SOAP

AND

PREPARATIONS

will be the sensation

of

1914

Greetings & Good Wishes to Chemists in all parts of the world.

LOOK OUT FOR OUR NEXT ANNOUNCEMENT.

Sole Agent for the United Kingdom and Exportation:—

W. BONSER HAYWARD, 17 Lawrence Lane, E.C.

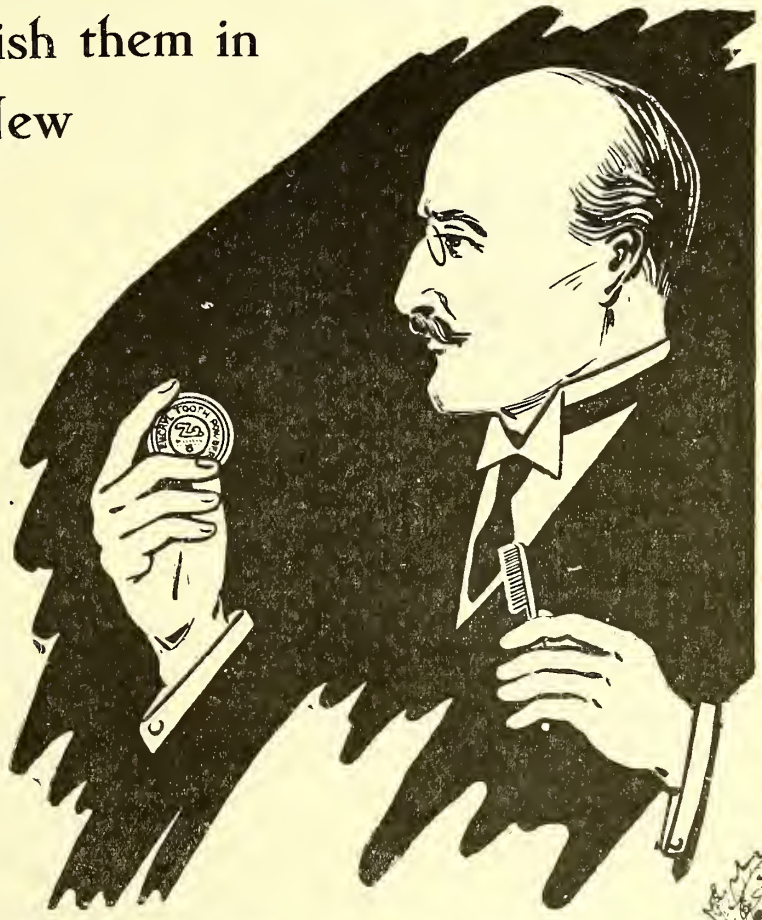
'Phone: BANK 8507.

THE 100% PROFIT DENTIFRICE.

OUR SPECIAL BONUS OFFER

is described on p. 125, the "C. & D." Diary, 1914. Have you seen it?

The persistent sale of Eucryl ensures to all Chemists the Happiness and Prosperity we wish them in the New Year.



EUCRYL AND EAU-DE-COLOGNE TOOTH PASTE IN TUBES WITH RIBBON APERTURE.

EUCRYL TOOTH POWDER IN FLAT TINS OR SPRINKLER TOP FLASKS.

Eucryl Ltd.

61-63 Lant Street,
Southwark, London, S.E.

The only Gold Medal for Meat Extracts at the International Medical Congress, London, 1913.

The confidence of the Medical Profession, of Pharmacy and of the general public for more than seventy years has given

BRAND'S INVALID PREPARATIONS

the premier position among articles of this class. When the "Best" is ordered, it is "Brand's."

A Prosperous New Year to all our Chemist Friends.

BRAND & CO., LTD
MAYFAIR WORKS, LONDON, S.W.

Health, Happiness, and Prosperity

to all during the coming year.

In Tablet Form:

A NEW LINE

One dozen Glass Pocket Flasks of Horlick's Malted Milk Lunch Tablets for Counter Display.

In Powder Form:

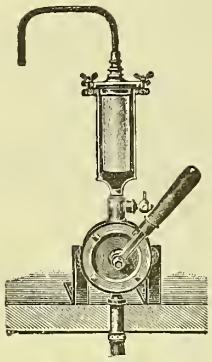
The Ideal Food, A Ready Seller, and Protected Prices.

HORLICK'S

MALTED MILK CO., SLOUGH, BUCKS, ENGLAND.

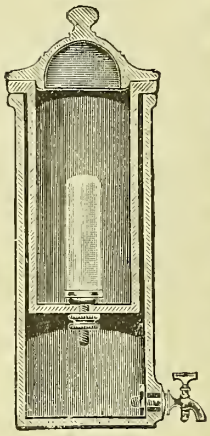
TRAVELLERS' PUMP FILTERS.

GLASS TABLE FILTERS. In 3 sizes.



HOUSE PUMP FILTERS, Rain Water, &c.

STONEWARE SHIP FILTERS.



Approved by the Board of Trade.

The Elimination of Germs

means increased

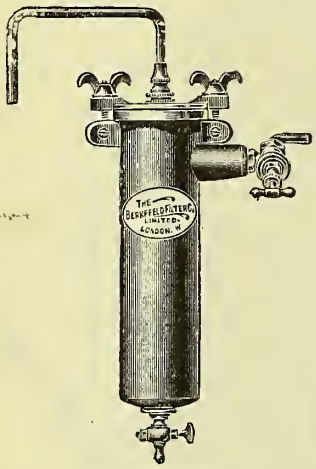
Health, Happiness, & Prosperity

to the public at large.

The Chemist who sells these Filters during 1914 is contributing to the general good as well as his own profit.

"WINCO" SEMI-ROTARY PUMPS.

For WATER, WINES, SPIRITS, CHEMICALS, &c. &c.



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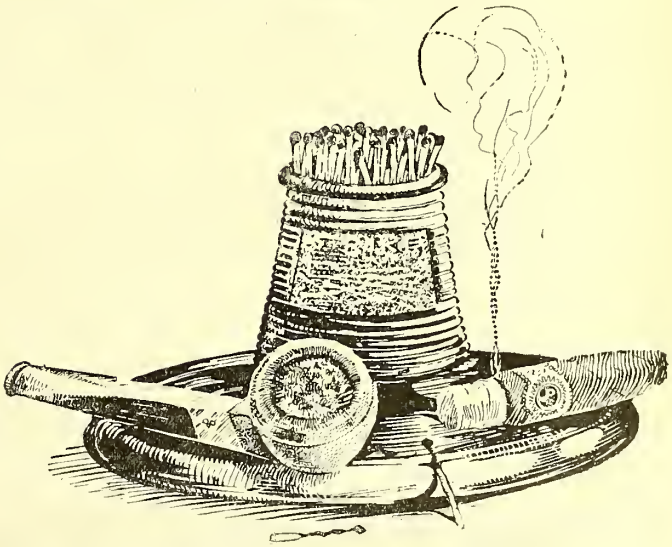

When these good times are over, look up pages 158 and 159 of the "Chemist and Druggist" Diary for 1914.

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CURATIVE WADDING

The original preparation of its kind. There is none equal to it in curative effect, in popularity, or in bringing

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1914

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up to 1903,

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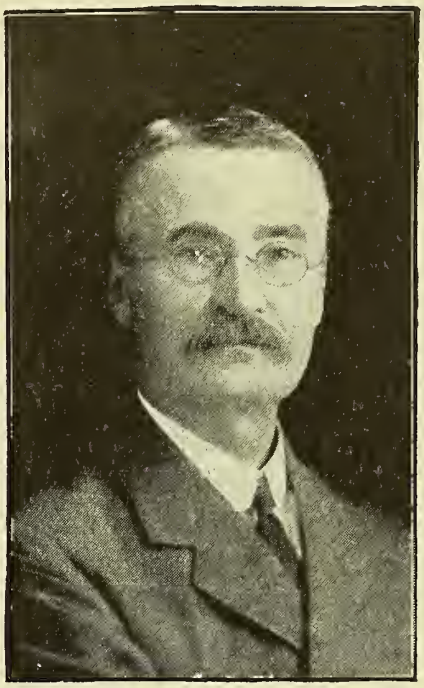

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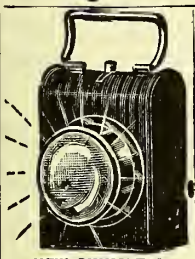

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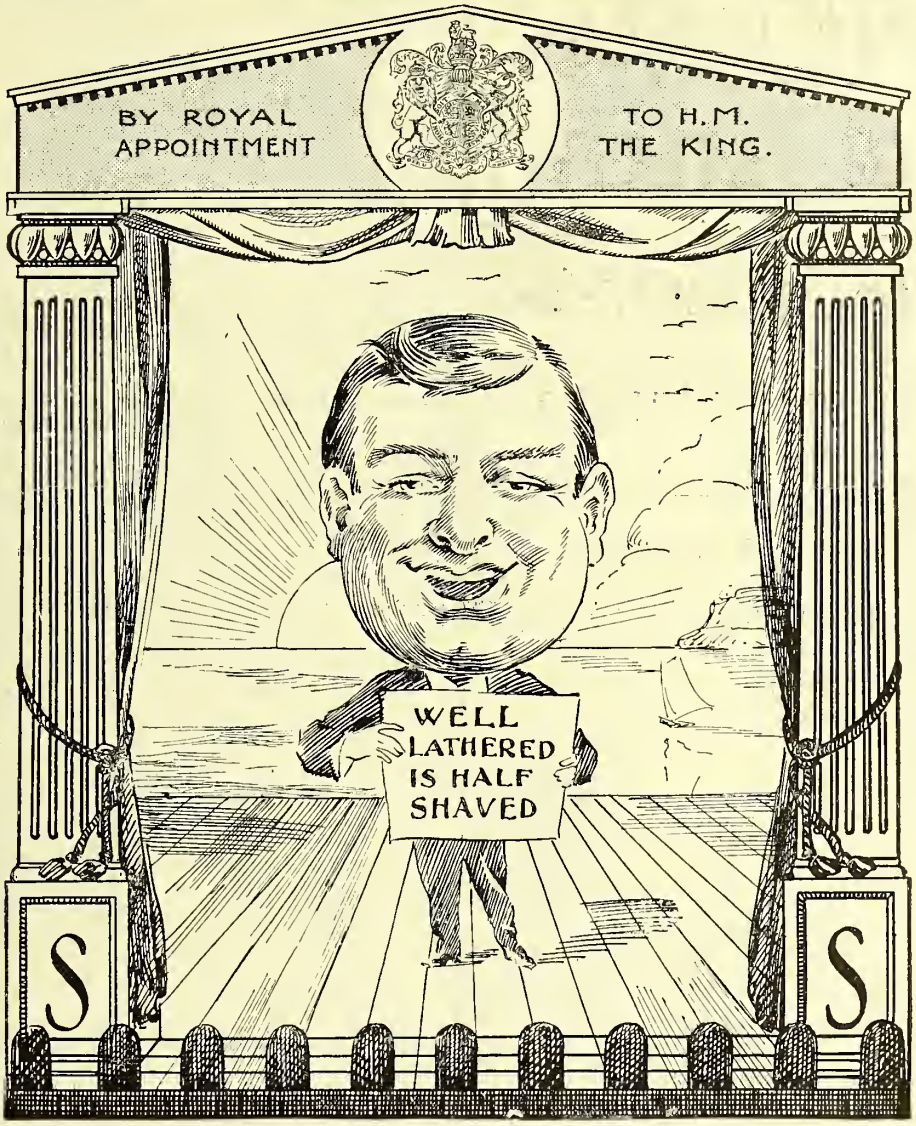

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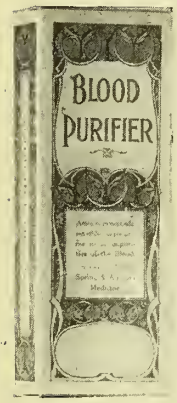

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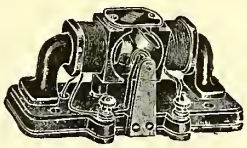

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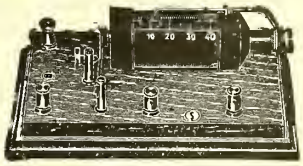

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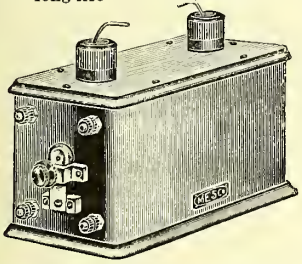

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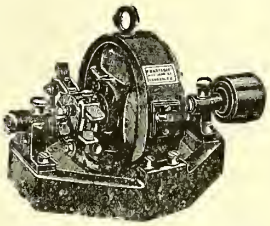

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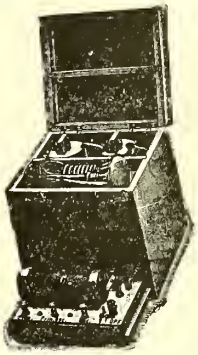

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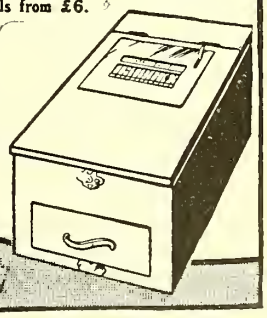

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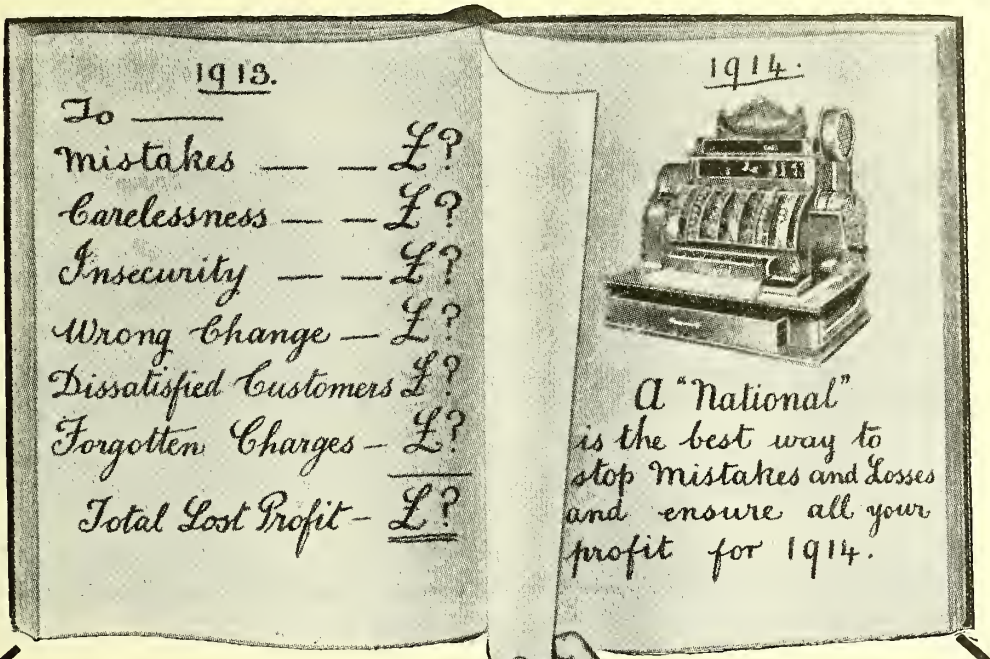

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Portion of a stele of victory of a King of Akkad, circa 2650 B.C., sculptured in relief with battle scenes. The fringe upon the plain martial tunic of the central figure has been extended and reproduced as a border.

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ARE YOU PREPARING

for bigger business in this New Year? Very probably every reader of THE CHEMIST AND DRUGGIST is hoping to do more, and we trust he will. Meanwhile we can assist by distributing

YOUR PRICE-LISTS OR CIRCULARS

to twelve thousand picked buyers of chemists' supplies in business all over the world. The distribution will take place in the Winter Issue of THE CHEMIST AND DRUGGIST, to be published this month, and it is advisable to put the matter in hand at once. Write to the Publisher, 42 Cannon Street, London, E.C., and ask him all about such things

AS INSETS IN THE WINTER ISSUE, January 31, 1914.

SUMMARY.

Subscribers are advised to read this column first.

Articles and Communications.

The future of citronella oil supply is discussed in an article on p. 41.

Further letters on the wisdom of chemists acting as dental practitioners are printed on pp. 68-69.

The 1911 census figures as regards the chemical and drug trades are the subject of a note on p. 58.

Dr. F. B. Power contributes a note on the research done in the Berlin Pharmaceutical Institute (p. 40).

Mr. Dudley C. Vining illustrates and describes a simple apparatus to estimate the amount of fermentation that takes place in syrups (p. 40).

Mr. Arthur E. Bailey explains how an old-established pharmacy was made the subject of an excellent calendar advertisement (pp. 53-54).

The year 1864 showed a remarkable similarity in pharmaceutical conditions to those foreshadowed in 1914. See the article which begins on p. 56.

Some physicians are still concerned about Pharmacopœia doses. Per-tinctures, tinctures, and sub-tinctures form one of the latest suggestions in grouping (p. 57).

We commence a series of articles on Minor Botany for students of Pharmacy, the first being by Mr. A. R. Barton on British Flora as an aid to the study of Materia Medica (pp. 41-42).

In a letter on p. 68 Mr. T. Barclay, for W. G. Taylor, the surgical-dressings manufacturer, gives some interesting particulars in regard to the Insurance dispensing Tariff standards for dressings.

British pharmacists will not sigh for the Government protection which German apothekers enjoy, when they read the particulars about the official inspection of pharmacies in Germany (p. 57).

News of the Week.

Scotland sends a goodly share of this week's trade news (p. 44).

Particulars of the new Portuguese medicine tax are given in a note on p. 47.

The condition of Prussian pharmacy is well reflected in the annual statistics which we print on p. 48.

Mr. Granville Shaw's Insurance cartoon aptly hits off an additional call upon chemists' encyclopædic knowledge (p. 59).

We invite replies to this question: Has anyone other than Mr. John Thompson seventy-five years' experience of British Pharmacy? (p. 50).

A South African correspondent contributes some suggestive remarks on the manner in which American and British firms are catering for the drug-trade there (p. 46).

Subscribers are reminded that the time is getting short for using our *Diary* coupon cards for the ten guineas in prizes. Particulars are given in the Coloured Supplement.

Besides the usual reports from local centres regarding Insurance Act dispensing (pp. 59-60), we publish a complete list of the Pharmaceutical Committees elected for the counties and county boroughs of England. It begins on p. 61.

Sir Richard Winfrey, M.P., is now the correct term, the King having conferred a knighthood upon this erstwhile pharmacist and former President of the Chemists' Assistants' Association. A similar honour is conferred on Professor Rutherford, the radium authority (p. 43).

Liverpool chemists are strongly opposed to the proposal of the Pharmaceutical Council that a majority representing that Council should be elected to the central Insurance Committee, which is to displace the existing Pharmaceutical Standing Committee on Insurance. This feeling appears to be general (p. 52).

Trade and Market Matters.

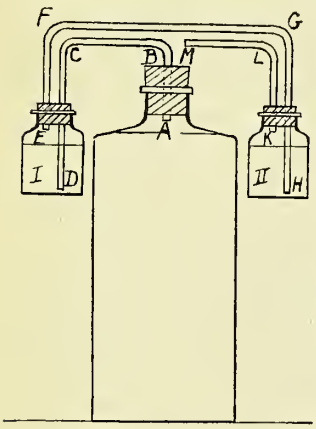
Business has been in small compass owing to the holidays and stock-taking operations. Atropine, Belgian castor oil, turpentine, santonin, and shellac are higher. Quinine (seconds) is firmer; citric acid, cassia oil (c.i.f), orange oil, and common canary-seed are easier (p. 66).

Fermentation in Syrups.

A Simple Apparatus for Estimating It.

By Dudley C. Vining.

THIS apparatus illustrated can be easily made and used, and has proved very effective. Bend three pieces of glass tubing of 5-mm. diameter, one as at ABCD, another as at EFGH, and another as at KLM in the figure. Pass the end A of the tube ABCD through the cork of a medicine-bottle and the end D through the cork of a small wide-mouthed, white glass bottle (as at I in figure). Through this latter cork pass the end E of the tube EFGH, and the end H through the cork of another small bottle similar to I (as at II in figure); also through the same cork pass the end K of the tube KLM. Care must be taken to observe the following details:



The end A of ABCD should just protrude from the cork of the medicine-bottle, and the end D should very nearly touch the bottom of bottle I in figure. The end E of EFGH should just emerge from the cork of bottle I, and the end H should nearly reach to the bottom of bottle II. The end K of KLM should just pass through the cork of the latter bottle. The medicine-bottle is filled with the liquid to be tested for CO_2 (leaving a small space above the surface to allow for expansion when the liquid is heated). The bottle I is filled with lime-water and the bottle II with ordinary water, then the liquid in the medicine-bottle is gently warmed. The space between the surfaces of the liquid being tested and the lime-water should be as small as possible, so that the CO_2 (if any) can pass quickly into the lime-water, which will become cloudy. The air (and CO_2), when displaced from the medicine-bottle, bubbles through the lime-water, then through the ordinary water, and finally passes out of the tube KLM into the air. Thus the lime-water is not exposed to the atmosphere, so that any cloudiness observed cannot be due to CO_2 in the air.

John Berkenhout.

MR. ALFRED H. M. PURSE, Sunderland, has sent us a copy of Berkenhout's "Pharmacopœia Medici," one of the most interesting formularies of the eighteenth century. The work was first published in 1766, and Mr. Purse's copy is of the fourth edition which appeared in 1788. It is in Latin, and begins with an account of the properties and characters of groups of medicaments with a table of doses. The last half consists of a series of prescriptions grouped under adstringents, alteratives, antacids, etc., reflecting in the simplicity of the formulæ the clear views of the author. John Berkenhout (1730-1791) was born at Leeds, his father being of Dutch descent. He was educated in Germany, but in 1760 entered Edinburgh University to study medicine. He took the degree of M.D. at Leyden in 1765. Meanwhile he published his "Clavis Anglica Linguæ Botanicæ Linnæi." Berkenhout settled at Isleworth, and while there brought out his "Pharmacopœia Medici." Other works were "Outlines of Natural History of Great Britain" (in three volumes) and "Biographia Literaria, or a Biographical History of Literature containing the lives of English, Scotch, and Irish authors from the dawn of letters in these kingdoms to the present time, chronologically and classically arranged." Only the first volume of this latter work appeared, but on it his fame rests chiefly. There were several other small works, including one on "Symptomatology," a simple guide to diagnosis. In the preface of this work some hard things were written about the incapacity of the medical profession which provoked replies from pamphleteers.

Bibliographia.

Pharmaceutical Research.

Arbeiten aus dem Pharmazeutischen Institut der Universität Berlin. [Investigations conducted in the Pharmaceutical Institute of the University of Berlin.] Issued by Professor Dr. H. THOMS, Privy Counsellor and Director of the Institute. Vol. X. Pp. viii+220, with two illustrations in the text. (Berlin and Vienna: Urban & Schwarzenberg. 1913.)

THE interesting annual publications bearing the above title, which have been brought to notice from time to time, have now advanced to the tenth volume. The present issue contains an account of the varied activities of the Berlin Pharmaceutical Institute during the academic year 1912-13, and an opportunity is thus again presented for giving a brief outline of their character and scope. The preface to the volume contains some general information concerning the work of the Institute, from which the following items may be noted. The lectures on pharmaceutical chemistry were attended during the summer semester by eighty-six students and in the winter semester by seventy-six students, while the course in toxicological chemistry during the latter period was taken by thirty-eight students. Those participating in the practical work of the laboratories numbered 111 in the summer semester and ninety-five in the winter semester, and in all of these different branches of instruction there were two ladies. It has been recorded that October 27, 1912, marked the completion of the first decade in the history of the Institute, and the occurrence of this period was suitably commemorated. During the past year even greater demands than formerly have been made upon the Institute for judicial reports concerning food and drink, and products from the German colonies, as also for the investigation of secret remedies. With the approval of the Minister of Education, the facilities of the Institute have likewise been made available in connection with the advanced courses for pharmacists, which, since the winter of 1912-13, have been organised by State authority in Prussia. Such a course was initiated in Berlin on October 15, 1912, when the Director of the Institute delivered an experimental lecture on "Electro-chemistry as an Aid to Chemical Analysis and in the Manufacture of Chemical Preparations." Subsequent lectures, accompanied by practical exercises, were given in the following subjects: Sterilisation in the pharmacy, the filling of ampoules, etc.; physiological-chemical investigations; examination and valuation of fats, especially of lard, according to the requirements of the Meat Inspection Act; the identification and examination of new remedies. During the year excursions were made by the students, accompanied by the Director, to various industrial establishments, such as the potash mines and works of the Solvay Co., and a margarine factory. Further progress has also been made in the cultivation of medicinal plants for scientific purposes, the most recent additions having been *Hamamelis virginiana* and *Chrysanthemum cinerariæfolium*, the latter being the source of "insect powder." In order to conduct certain phytochemical or biological investigations a small conservatory has been constructed, which is provided with electrical current for lighting, heating, and mechanical purposes. A special department of the Institute has also been adapted for work with serums, the determination of the toxicity of chemical substances, and for physiological tests which require the use of animals. With regard to the contents proper of the present volume it may be stated that the subject-matter is divided in a manner similar to that heretofore adopted, and comprises:

I. Investigations in the department for the examination of medicinal agents, proprietary and secret remedies.

II. Organic chemical investigations, which are subdivided into those of a phytochemical and of a general character.

III. Microchemical investigations.

IV. Investigations in the department for the examination of food and drink, and technical and colonial products.

V. Judicial observations and reports.

Although the present volume contains several papers which have previously been published, it also contains much other information, and its usefulness for reference is greatly facilitated by a good index. It may finally be observed that the volume now under consideration affords evidence of the unabated effort of the Director of the Berlin Pharmaceutical Institute to maintain the professional status of pharmacy, and also to render the institution over which he presides of the greatest possible service to the State.—*F. B. Power.*

Citronella Oil.

IN view of the great scarcity of Java citronella oil, which has been quite insufficient to meet the European and American demand almost throughout the year, Professor Wyndham Dunstan has suggested to the Ceylon Chamber of Commerce that it should be ascertained if it would not be worth while for citronella-grass cultivators in Ceylon to take up the planting of the *Maha-pengiri*, or Winter's Grass, from which the Java oil is obtained. He remarks that it might, of course, be less profitable to cultivate this grass than the *Lena-batu* now generally grown in Ceylon; but adds that he could hardly think so, considering the different prices obtainable for the two oils at present [Java about 5*s.*, Ceylon 1*s.* 10*d.*]. Inquiries were made in Ceylon, and the conclusion was come to that oil from *Maha-pengiri* was not distilled to any extent, but the natives got no better price for it than for oil from *Lena-batu*, and the former needs a better soil and more careful cultivation. The cultivation of citronella grass is not expanding, according to Mr. Drieberg, of Peradinaya, for, while cultivation is increasing in the Tangalle district, it is being given up to rubber in the Galle-Matara district. We note, however, from the "Ceylon Handbook" that there were in September 1913 5,293 acres under citronella grass, as compared with 4,359 acres in 1911. The demand for citronella oil appears to be continually increasing, and it would have been thought that in view of the larger shipments from Ceylon prices would have declined, but they have not done so to any appreciable extent, neither has there been any considerable supplies in Europe and the U.S.A. upon which consumers could fall back if arrivals fell short. We note that the Ceylon exports up to December 8, 1913—the latest date available—amounted to 1,430,157 lb., or 159,288 lb. more than at the corresponding period of 1912; of this amount, the U.K. has taken 565,162 lb. (1912 567,670 lb.): the U.S.A., 451,531 lb. (1912, 436,413 lb.); and Germany, 264,661 lb. (1912, 153,087 lb.). Messrs. Schimmel & Co., in their half-yearly report, state that adulteration has again become unpleasantly prominent. Formerly petroleum was the most popular adulterant, but as this admixture is so easily detected benzine appears to have been preferred in Ceylon—this, though dearer than petroleum, being readily soluble and much more difficult to detect by superficial examination. This is by no means confined to Ceylon, for Messrs. Schimmel have discovered motor spirit (automobile benzine) in two samples of Java citronella oil. With regard to the commercial position of Java oil, Messrs. Schimmel say:

"This driving up of prices, however, is not only ascribed to the brisk demand for citronella oil of good quality, but also, and in a still greater degree, to the great drought which has prevailed in Java . . . entire plantations having been dried up by the heat. All the planters are complaining bitterly of the drought, as it renders them unable to fulfil their contracts. Many new factories have lately been built on the island, whose proprietors have already sold their output for 1914. They offered larger quantities than they will be able to produce, but nevertheless they found buyers, who will be greatly disappointed later at the small quantities which they will receive."

Minor Botany.

IN the course of this year we hope to publish as frequently as possible a series of articles and illustrations on the botany which those preparing for the Minor examination have to get up. Miss Kate Ashley, an accomplished botanical artist, is preparing for us a series of drawings requisite to illustrate the medicinal plants with which Minor candidates are expected to be familiar. These will be true to character and type, and should be of special service for home study.

To-day we submit observations by Mr. A. R. Barton (Ryde, I.W.) on

BRITISH FLORA AS AN AID TO THE STUDY OF MATERIA MEDICA.

Drug specimens from plants indigenous to or cultivated in the British Isles appear to be little utilised by the Minor student as a means of increasing his knowledge of materia medica. Yet of those plants yielding official drugs, or included in the Minor syllabus for recognition, no fewer than sixty are either indigenous or commonly met with, while many others can be easily grown in the open air. Materia medica may be made a practical and interesting subject if the student cares to make a "local collection" of drugs, following as nearly as possible the official or generally accepted time of collection and method of preparation. The identification of the plants is not so difficult as appears at first sight, and the patient use of Bentham and Hooker's "British Flora," or "The Student's Flora of the British Islands," by Sir J. D. Hooker, will soon solve any difficulty. If the beginner is afraid of technical terms he should consult the Rev. C. A. Johns's popular "Flowers of the Field." The student will soon realise the pleasure to be experienced in meeting, in the course of his rambles, plant after plant of pharmaceutical interest.

Our British flora also helps in the study of foreign drugs, and to aid the memory concerning a particular drug there is nothing like associating a particular drug with a local plant. The unexpanded flower of the myrtle may serve as a faithful "mnemonic" of the clove; the periwinkle may be associated with strophanthus, being our sole representatives of the N.O. *Apocynaceæ*. The spindle-tree (*Euonymus europæus*) of our hedges and copses belongs to the same genus as the official *Euonymus atropurpureus*, N.O. *Celastrineæ*. Such associations help the student to remember the names of foreign natural orders which otherwise merely impose a burden on his memory.

The following list includes plants which are either indigenous to or well established in the British Isles:

Aconitum Napellus.
Acorus Calamus.
Althæa officinalis.
**Anthemis nobilis.*
Arctostaphylos Uva-ursi.
Artemisia maritima.
Aspidium Filix-mas.
Atropa Belladonna.
Berberis vulgaris.
Brassica alba.
Brassica sinapoides.
Bryonia dioica.
Calendula officinalis.
Carum Carvi.
Cetraria islandica.
Chondrus crispus.
Cochlearia Armoracia.
Colchicum autumnale.
Conium maculatum.
Convallaria majalis.
Coriandrum sativum.
Crocus sativus.
Cytisus Scoparius.
Daphne Laureola.
Daphne Mezereum.
Datura Stramonium.
Digitalis purpurea.
**Fœniculum capillaceum (vulgare).*
Fucus vesiculosus.
Helleborus niger.
Hordeum distichon.
**Humulus Lupulus.*
Hyoscyamus niger.
Inula Helenium.
Juniperus communis.
Juniperus Sabina.
Lactuca virosa.
Laurus nobilis.
Lavandula vera.
Linum usitatissimum.
Lycopodium clavatum.
Marrubium vulgare.
Mentha piperita.
Mentha Pulegium.
Mentha viridis.
Papaver Rhœas.
Papaver somniferum.
Pinus Larix.
Populus alba, etc.
Prunus Laurocerasus.
Quercus Robur.
Rhamnus Frangula.
Rosmarinus officinalis.
Ruta graveolens.
Salix alba, etc.
Sambucus nigra.
Solanum Dulcamara.
Taraxacum officinale.
Triticum repens.
Ulmus campestris.
Valeriana officinalis.

In the case of those plants marked with an asterisk the cultivated plant only is official.

Among plants easily grown in the open in this country may be mentioned *Hydrastis canadensis*, *Nicotiana Tabacum*, *Pimpinella Anisum*, *Peucedanum graveolens*, and *Rosa centifolia*. If fresh seeds are difficult to obtain, those supplied by the drug-houses may be tried. Opium-poppy, linseed, henbane, and coriander may usually be successfully raised from seeds taken from drawers in the pharmacy, even when known to be several years old.

HENBANE (*Hyoscyamus niger*).
Photographed *in situ* on shores of Isle of Wight.

The henbane-plant reproduced was taken *in situ*, being fully 3 feet high, and last year, in view of Insurance dispensing, sufficient was gathered to prepare nearly 2 galls. of tincture, but more material was left behind than brought away. The following notes on digitalis illustrate how much can be learnt by collecting drugs for the preparation of galenicals :

	oz.	grains
Weight of fresh leaves collected	31	100
Weight of leaves in dried state	3	300
∴ Loss in weight =	27	240

Thus the leaves lost nearly 88 per cent. on drying. The dried product was rubbed through a No. 20 sieve, and the B.P. directions followed in preparation of one pint of tincture. Instances such as this show how the daily toil in the pharmacy may be made of much greater interest, besides allowing the future pharmacist to acquire gradually knowledge which so many try to cram in just before their Minor examination.

THE SIAMESE MORPHINE AND COCAINE ACT, 1913 (*C. & D.*, 1913, II., 955) came into force on January 1, 1914.

MR. JOHN THOMPSON, who is well known to the trade on account of his long association with the house of Maw, recently celebrated his eighty-eighth birthday, and is remarkably well for his years, having completely recovered from a rather serious illness which he had last year. Mr. Thompson is a pharmacist, and his connection with the Aldersgate Street firm commenced in 1852. He was on the road for them for about a decade, also representing Messrs. Hodgkinsons, Stead & Tonge and Messrs. Letchford & Co. In 1861 he became manager of the house and in 1870 a partner, retiring in 1900. His experience of the drug trade commenced in 1839 (when he was fourteen years old) with Mr. John Lofthouse, Kingston-upon-Hull. Is there anyone else alive who has seventy-five years' experience of British pharmacy?

ENGLISH AND WELSH NEWS.

Subscribers are invited to send to the Editor newspapers containing news of trade interest. Please mark the items.

Brevities.

Mr. Arthur Flamank, Pharmacist at the Royal Surrey County Hospital, Guildford, has been granted a provisional patent for "improvements in crutches for the use of invalids and the deformed."

One man was killed and two others injured by an explosion on December 30 at the aniline colour works of Levinstein, Ltd., of Crumpsall Vale, Manchester, one of the buildings being partially wrecked.

A fire broke out on December 19 in offices over the branch of the Timothy White Co., Ltd., chemists and druggists, Brand Street, Hitchin. The flames had burnt through the floor before the outbreak was discovered and subdued.

The Guardians of the Billericay Union have decided that in future all drugs shall be purchased by the Board, and not at the expense of the medical officer, but that Dr. Wells shall do his own dispensing, his salary remaining as before.

The outbreak of foot-and-mouth disease in Hertfordshire is being drastically stamped out by the Board of Agriculture. Threescore cattle were burnt at the farm at Whitwell, and the ground of the farm and surrounding district was spread with tons of carbolic powder.

At the adjourned extraordinary meeting of the British Medical Association, held in its offices on December 30, the decision of the representative meeting to alter the memorandum of association with a view to giving the Association greater facilities of working and wider powers of borrowing money was confirmed.

The Middlesex County Council have decided to make an order under the Shops Act, 1912, fixing Wednesday as the weekly half-holiday for all shops which lie north of Strawberry Vale Brook, Friern Barnet, with certain exceptions, these including the trades of chemist, optician, and photographic dealer, and all shops that abut on the Great North Road at Whetstone, north of Oakleigh Road.

The Christmas shopping week at Stamford, in the organisation of which the National Cash Register Co., Ltd., assisted, was a great success. A picture which appeared in the "Daily Graphic" showed the Marchioness of Exeter, with the Mayor and Mayoress of Stamford, engaged in judging the shop windows. The third prize in the class for "Things to use" was awarded to Mr. J. S. Prior, Ph.C., of High Street.

"The Times" reports that there was quite a rush among underwriters on Wednesday of last week to insure themselves against the risk of loss consequent on catching mumps. It appears that a number of cases were reported among clerks and others in the City. The premiums were 5*s*. for those who had had mumps and 10*s*. for those who had not, these covering a payment of 10*l*. for each week of the coming three months during which they might be disabled by mumps.

The "Daily Mirror" printed on December 26 three photographs illustrating pill-production, one of the pictures being of a Colton's pill-making machine. Our contemporary's remarks were :

"Everyone is busy at Christmas time—one industry of which little is heard, but which is none the less important, is the making of pills, for which, strange to say, there is an unusual demand at this season! The photographs illustrate the process of manufacture; girls are seen at work cutting and shaping the pills, and one is holding a tray of them ready for packing. The machine can turn out 100,000 pills a day."

We understand that the photographs were taken in Messrs. Parke, Davis & Co.'s factory at Hounslow.

New Year's Honours.

Five new peers, five Privy Councillors, six baronets, and forty knights were created by King George V. on New Year's Day. These are apart from honours conferred through the Government Departments. Among the Privy

Councillors is Sir Christopher Nixon, Bart., M.B., LL.D., Dublin, a member of the General Medical Council. Professor Ernest Rutherford, F.R.S., Langworthy Professor and Director of Physical Laboratory in the University of Manchester, is one of the knights. He is the well-known authority on radium. The name of Mr. Richard Winfrey, M.P., is also among the knight bachelors. Mr. Winfrey is a pharmaceutical chemist, is a native of Long Sutton, Lincs, and was apprenticed to a chemist in Stamford. He passed the Minor examination in December 1879, and the Major in April following. He was for a time on the staff of Messrs. John Bell & Co., Oxford Street, London, and for several years in the 'eighties was an active member of the Chemists' Assistants' Association, and its President in one year. He left pharmacy about a quarter of a century ago for journalism and politics. He has been Liberal member of Parliament for South-West Norfolk since 1906, and Parliamentary Secretary (unpaid) from 1906-10 to Lord Carrington (now Lord Lincolnshire), then Minister of Agriculture. He established the Lincolnshire and Norfolk Small Holdings Association, of which he has been chairman for nineteen years, and is manager of various newspaper companies in the Eastern Counties. He is Mayor of Peterborough this year. A knighthood is also conferred upon his Honour Judge Lumley Smith, who has been succeeded as Judge of the City of London Court by Mr. Atherley Jones. When at the Bar Mr. Lumley Smith was concerned as counsel for the Pharmaceutical Society in High Court cases.

SIR RICHARD WINFREY.

Against Sterilised Milk.

Mr. Robert Mond, M.A., F.R.S.E., son of the late Dr. Ludwig Mond, has been conducting at his experimental farm, Coombe Bank, Sevenoaks, investigations on the relationship between milk and tuberculosis. To a representative of "The Times" he stated that his investigation shows that there is not the slightest danger of tuberculosis being conveyed by milk to human beings, especially children. Greater danger lies in the use of sterilised milk as a nutrient. Among his reasons for saying so is the fact that kittens fed upon sterilised milk died within a fortnight of starvation. Mr. Mond has himself been taking milk from tuberculous cows and thrived on it.

Sir Almroth Wright supports Mr. Mond to the extent of saying:

It is a question the State must take up and solve. He has demonstrated that when milk is boiled the lime and magnesium salts are precipitated and settle at the bottom of the vessel. The upper portion of such milk will not curdle with rennet, as fresh milk does. If, however, a drop of acid is added to the sterilised milk, the lime salts are again dissolved and spread through the milk. It then curdles at once with rennet. One could not suppose that the loss or decrease of a particular constituent—excepting, of course, an alteration deliberately made for a specific purpose in a specific case—could fail to affect the value of the milk. High medical authorities have stated that children fed on sterilised milk are apt to contract scurvy. He suggested that the precipitation and consequent loss of the lime salts are responsible for the condition in these cases. The body requires those salts and cannot remain healthy without them.

So Sir Almroth told a representative of "The Times."

Dispensers' Appointments.

Mr. J. H. Garbutt, Ph.C., dispenser at St. Thomas's Hospital, has been appointed chief pharmacist to Charing Cross Hospital, London, W.C.

Mr. Jones, dispenser at the Reading Workhouse, who has been ill for a considerable time, has been granted, subject to the approval of the Local Government Board, a superannuation allowance of 15*s.* per week.

The Local Government Board have sanctioned the following appointments of dispensers of medicine:

Greenwich Union.—Miss B. M. Williams, Royal Hill Dispensary.

Kingston (Surrey) Union.—Miss J. A. Louch and Miss N. Worley (Infirmary).

Derby Union.—Miss M. B. Jephson.

Prescot Union.—Miss D. A. Ball (Workhouse).

Birmingham Notes.

A judicious free sampling by a chemist firm of invalid-food makers in London has resulted in a marked run on this preparation.

Chemists were among the comparatively few traders who opened on the Saturday following Boxing Day, and even they found little service required by the public.

With the departure of the Christmas ills, bills, and pills, the windows of Birmingham pharmacists have speedily changed. The severe weather has made cough-cures, lozenges, chest-protectors and warm socks, cod-liver oil and malt foods the order of the day.

Manchester Business.

Manchester chemists in general have had increased sales this Christmas, business being very good, those who have made good shows of perfumes and seasonable gifts having done better than in previous years. Thus all records have been beaten. Never has such a period of activity been experienced before. The cold snap in the weather conditions made business in general much more brisk with Manchester chemists.

Contracts.

Lewes (Sussex) Guardians.—Mr. J. C. Lloyd, chemist, Lewes, for drugs.

Headington (Oxon.) Guardians.—Mr. C. Clayton, chemist, Oxford, for drugs.

Macclesfield Guardians.—Mr. Ernest Brian, 25 Mill Street, Macclesfield, for a year's supply of drugs.

Holywell Guardians.—Mr. David Hughes, Holywell, for carbolacene at 1*s.* 11*d.* per gall., and for fumigating charcoal at 8*s.* per cwt.

Hull Guardians.—Haberland & Glassman, Hull, for soda, at 2*l.* 15*s.* per ton; Mr. B. M. Stoakes, Ph.C., for the supply of aërated waters.

Bolton Guardians.—Waller & Riley, Bolton, for absorbent wool and drugs; Joseph Taylor & Co., Ltd., Bolton, for drugs and disinfecting fluid; T. Moscrop & Co., Ltd., Bolton, for disinfecting fluid; Wareing Bros. & Co., Bolton, for chloride of lime, turpentine, and hydrochloric acid.

From Various Courts.

For selling pearl barley adulterated with rice starch a Hanford grocer has been fined 10*s.* and 3*l.* 19*s.* costs. It was stated that the dressing is done in Denmark.

At Tower Bridge Police Court on Tuesday, December 23, Alfred Gill (18), bottle-washer, Ethelred Street, Camberwell, pleaded guilty to stealing a sum of 5*l.* 11*s.* 2*d.* in cash from the cashier's office of Wright, Layman & Umney, Ltd., of 46 Southwark Street, S.E. Prisoner was remanded.

IRISH NEWS.

Subscribers are invited to send to the Editor newspapers containing news of trade interest. Please mark the items.

Brevities.

Dr. J. C. McWalter, M.D., B.L., Ph.C., etc., has added another degree, that of B.M. of the Dublin University, to the many distinctions he already possesses.

Messrs. W. F. Wells & Son, chemists, have now removed their business from 52 Upper Sackville Street to fine new premises lower down in Sackville Street, Dublin.

The Governors of Steevens Hospital, Dublin, have appointed Boileau & Boyd, Ltd., and Smith & Sheppard,

Dublin, contractors to supply drugs and surgical appliances respectively for the ensuing year.

Mr. S. Parker Boyd, M.A., managing director of Boileau & Boyd, Ltd., wholesale druggists, Bride Street, Dublin, has been elected as a traders' member of the Dublin Port and Docks Board.

In accordance with the recommendations of the Celluloid Committee, the Irish authorities have issued a circular to shopkeepers regarding the storing of celluloid articles (see *C. & D.*, December 13, 1913, p. 36).

The dispensers connected with the Dublin Poor-Law Unions have put in a claim for increased remuneration owing to the enhanced cost of living and increased responsibilities. They have at present a maximum of 160*l.* a year, and have petitioned that this be increased to 200*l.*

SCOTTISH NEWS.

Subscribers are invited to send to the Editor newspapers containing news of trade interest. Please mark the items.

Brevities.

The Kelty Co-operative Society has opened a drug-store.

The chemists and druggists of Montrose have asked the Town Council to obtain a closing order.

Aberdeen and the North.

Mr. A. W. Shirras, chemist and druggist, Aberdeen, has removed into the new premises which he has built at the entrance to Kittybrewster G.N.S.R. station. The pharmacy is one of the handsomest in the city.

Mr. James F. Ironside, who has been appointed a member of the Aberdeen County Pharmaceutical Committee, is in business at 32 West High Street, Inverurie, not Inverness, as stated in our Supplement of December 27.

The Sale of Food and Drugs Acts authorities of Aberdeen have aroused themselves to action. Several purchases were made last week from local chemists, among them lime water, camphorated oil, red oxide of mercury ointment, and glycerin.

At Aberdeen on December 23, Alexander Robertson Horne was committed for trial by Sheriff Young on a charge of embezzling about 100*l.*, belonging to Messrs. William Paterson & Sons, wholesale druggists and manufacturing chemists, while he was a member of the firm.

Presentation to Mr. D. Gilmour.

When the *C. & D.* of December 27 was delivered in Dunfermline last week the chemists of the town conferred with each other as to how they could honour Mr. David Gilmour on the occasion of his silver wedding, and as a result they were able within six hours to invite him to meet them in the City Hotel on Friday evening, those present being Messrs. J. H. Fisher, John Gilmour, W. T. Louden, Angus Macdonald, George Philp, A. Robertson, sen., A. Robertson, jun., R. Robertson, and J. A. Seath. Mr. Louden, on behalf of his *confrères*, asked Mr. Gilmour's acceptance of a handsome silver rose-bowl, and in so doing referred to the excellent work that Mr. Gilmour has done for pharmacy in his capacity as divisional secretary to the Pharmaceutical Society, as a member of the Council of the Society, and in other directions. The bowl was inscribed as follows:

Presented to Mr. David Gilmour, Ph.C., on the occasion of his silver wedding, by his brother chemists in Dunfermline, December 27, 1913.

Mr. Gilmour expressed his surprise and pleasure at this mark of esteem, assuring the company that their kindness touched him very deeply. "The Dunfermline Journal" of December 27, in reporting the event, referred to Mr. Gilmour's work for the city as a member of the Town Council and of the School Board, and in Church and social activities.

Edinburgh.

St. Cuthbert's Co-operative Association, Ltd., have now opened their Haddington Place chemist's premises. The shop is handsomely fitted, in keeping with the rest of the block of buildings recently built by the Association.

The Edinburgh Royal Infirmary Managers report that from November 15 to December 14 the number of persons admitted to the wards for treatment was 1,023, and of these 453 (or 44.23 per cent.) were insured persons. Of the out-patients (2,675), 889 (or 33.23 per cent.) were insured persons.

The year of revolution closes fairly quietly, in spite of the pessimistic prophecies of yester-year. Most chemists have had their full share of Insurance work and payment; a few doctors have purchased motor-cars a decade earlier than they could otherwise have hoped; and one supposes that after all everything is for the best in the very best of worlds.

Glasgow and the West.

As a result of the hint given by the Local Government Board recently that drugs might with advantage be more frequently inspected, chemists are preparing for the "visitors." But the Glasgow chemists and druggists pride themselves on the superior quality of their goods, and have little fear of "prosecutions."

Messrs. F. W. Hampshire & Co., Ltd., manufacturing chemists, Riverside Works, Derby, have appointed Mr. William Wright Adams, of Messrs. Wm. Hill, Glasgow (Scottish agents of Phosferine, Icilma, etc., preparations) as their Scottish representative. Mr. Adams is a keen Freemason, and a Past Master in the ancient lodge of Glasgow St. Mungo's, No. 27.

Last week Mr. John Stuart Young, Scottish representative of Messrs. F. C. Calvert & Co., Manchester, was entertained by his brethren of the masonic lodge, Thistle and Rose, No. 73, Glasgow, of which he is the immediate Past Master, and Bro. Wm. L. Thomson, R.W.M., in the name of the lodge presented him with a handsome Past Master's jewel and apron.

Mr. F. W. Harris, F.I.C., F.C.S., the Glasgow Corporation Analyst, in the course of his report for the year which ended on May 31, 1913, refers to the need of a Government Department that would define standards of purity for all foods and drugs, and adds:

The advance of scientific knowledge, while increasing the resources of the analyst, also provides the manufacturer with greater facilities for the development of new forms of adulteration, so that to-day almost every article of food is liable to a variety of sophistications. Every new form of adulteration recorded involves the further expenditure of much work and time to effect its detection; while the determination of the amount of adulteration—rendered necessary by the provisions of the Acts—is frequently a matter of considerable difficulty, necessitating the use of all the refinements of chemical and physical science. . . . These obstacles to progressive efficiency in the control of the quality of foodstuffs can only be surmounted by the Government establishing a Board of Reference, equipped with a properly organised Intelligence Department, and empowered to define standards of purity for all food and drugs.

Of the 1,270 samples examined during the year 773 were genuine. Fifteen samples of ground cinnamon were certified as genuine and eight contained an excessive quantity of siliceous matter. The analysis of ground ginger samples proved that they were free from admixture with exhausted ginger, but one sample of black pepper contained an excessive proportion of husk.

Uruguay Spirit Duty.—Alcohol of from 95° to 97° imported into Uruguay is now subject only to Excise duty at the rate of 20 centavos per litre. Alcohol for denaturisation may be imported free.

Development of Children.—When a hitherto intelligent child becomes stupid, dull, clumsy, and even when it exhibits traits that are distinctly abnormal and alarming, we need not be much concerned, states "The Lancet," if we find that it has started into rapid growth; and if the growth is very rapid almost any mental symptom may be witnessed without alarm. We need not fear ill results from stimulating the intelligence of a child, even of a precocious child, provided it is healthy in body, eats well, sleeps well, and is not disturbed by dreams, and provided we do not continue the stimulation into the period when bodily growth has started and the development of mind has no backing.

FRENCH NEWS.

(From the "C. & D." Paris Correspondent.)

PHARMACIST'S SUICIDE.—M. Alphonse Barbain, pharmacist, of the Rue de Fleurus, Paris, was found dead one morning last week in an outhouse at his country residence at Soizé, near Nogent-le-Rotrou. An empty phial and a silver cup by his side indicated that he had taken poison. He was subject to neurasthenic attacks.

DUSTBIN EXPLOSION.—The dustbin in the cellar of a pharmacy in the Rue des Nonnains d'Hyères, Paris, exploded last Sunday, setting fire to the lower premises and destroying a large stock of mineral water. The cause of the explosion is not explained, but is attributed to chemicals carelessly thrown into the dustbin.

LYONS EXHIBITION.—Lyons, the second city of France, is organising an International Urban Exhibition, to be held from May to November 1914. Among the sections will be: XXIV., Food Adulteration and its Detection; XXV., Mineral Waters and Spas; XXVI., Chemical Industry; XXVII., Police and Police Laboratories; XXVIII., Infectious Maladies, &c. Section XXVI. comprises chemicals, chemical manure, stearin soap, dyes, perfumes, etc. (Class 144); and pharmaceuticals, antiseptics, disinfectants, insecticides, and pharmaceutical instruments and apparatus.

A LETTER FROM CHARLES GERHARDT to Eugène Soubeiran, dated January 1846, has just been discovered and published by a French pharmaceutical journal. Many things have changed during the last sixty or seventy years, but one paragraph sounds singularly up to date; it refers to his contribution to pharmaceutical journalism, and particularly to his reviews of scientific works:

"I have always thought it better to be brief and clear, than to give these interminable extracts which no one reads. One has so many things to read nowadays that one likes to get rid of one's author as quickly as possible, and I do not think one can reproach me with the length of my articles."

AN ALGERIAN PHARMACY.—M. Paul Grandmont, successor of J. Obrecht, 28 Rue Bab-Azoun, Algiers, issues a thirty-two page pamphlet under the title of "Guide Pratique à l'usage des Clients de la Pharmacie Anglaise." The English section of the pharmacy is in charge of a British qualified chemist, and a long list of English proprietaries is given as being always in stock. Addresses are given of the local doctors, midwives, dentists, veterinary surgeons, masseurs, chiropodists, and nurses. Information regarding local train service occupies the back cover. M. Grandmont has a good many special preparations of his own.

THE RECENT PROSECUTION OF M. RÉMY, of the Pharmacie Commerciale, Place Clichy, had its origin in a somewhat curious incident. On March 13 last a clerk, who had just indulged in a *piqûre* of morphine, created a scandal at the St. Lazare Railway Station. Arrested and searched, several forged prescriptions for morphine were found in his pockets. These he had written and signed himself, but as the dose was given in figures and not in letters, as the law requires, the pharmacist who had been unfortunate and obliging enough to overlook this detail was summoned for infringing the fifth clause of the Royal Ordinance of October 29, 1846—*i.e.*, for doing what every busy pharmacist in Paris does daily. M. Rémy produced a letter from the head physician of the Pitié Hospital, pointing out that his offence was a merely formal one, that he was "unjustly prosecuted and could not be condemned"; but the Court held otherwise, and fined him sixteen francs. It is clear that this decision was largely influenced by the recent scandals and the efforts of the police to put down the illicit traffic in drugs. In fact, the judgment distinctly stated that "the difficulties caused to pharmacists by the regrettable habit of doctors to prescribe in figures" were undeniable, but that the strict application of the law was "more than ever necessary" just now on account of "the dangers of diffusion of stupefying drugs presented for the public health." The "rules from which all classes of medical bodies were inclined to free themselves" were a protection against this danger. In fact, this is now so generally admitted that a new regulation is proposed, extending the scope of the Ordinance in question to doctors as well as pharmacists.

THE DINNER-TABLE OF OUR DESCENDANTS.—M. Marcellin Berthelot's dream of the day when each of us will take his food in the form of a "little nitrogenous tablet, a small lump of fatty matter, a packet of sugar or fecula, and a phial of aromatic spices prepared to suit his personal palate," will possibly be (M. Houllevique points out in a recently published "scientific chat") the real and final remedy of the "dear food" crisis through which we are now passing. The remarkable experiences of Professor Daniel Berthelot, of the Paris Superior School of Pharmacy, who has recently been able, by ultra-violet rays, to effect combinations hitherto only possible in living tissues under the influence of chlorophyll, shows us that "Forward" is ever the chemist's watchword. So far he has given us artificial condiments and perfumes principally, rarely equal in bouquet to the natural article, but wonderfully cheap. M. Houllevique foresees the day when the chemist, wiser by long experience, will extend his efforts to our food. The admirable work of Fischer shows, he remarks, that the age of synthetic sugar is not far distant; one of these days we shall enjoy purely chemical bonbons. Then will come the turn of starchy foods, for we shall be offered "under charming names and an appetising aspect" pastes manufactured from sawdust, straw, and old rags. Our stomach possibly will protest a little at first; but all will be so nicely got up, so delicately flavoured, that we shall finish by giving in. Then will come the turn of the nitrogenous products, when the pig will at last know the pleasure of old age, if he does not bore himself to death in the new hygienic and aseptic world. But who will give us the bouquet of old wine and the exquisite taste of the strawberry?

INDIA AND THE EAST.

(From the "C. & D." Correspondents.)

BUSINESS CHANGE.—Messrs. N. Powell & Co., chemists and druggists, Bombay, have erected magnificent new premises overlooking the sea at Sandhurst and Lamington Roads.

OPIUM CULTIVATION IN INDIA.—Orders have now been issued for opium cultivation for the present year. The poppy-growing area has been reduced to 250,000 bighas. The reduction is evidently due (says the "Indian Agriculturist") to the termination of the opium trade with China. The Government of India have decided to increase the price of raw opium from Rs. 6 to Rs. 7-8 per seer. [Seer $= 2\frac{2}{35}$ lb.]

PERSONAL.—Dr. D. S. Pratt, a research chemist of the Bureau of Science of the Government of Philippine Islands, has visited Ceylon in order to investigate papaw, essential oils, rubber, coffee, tropical fruits, etc. The Manila Merchants' Association state that there are persons in the Philippines who are willing to undertake the production of papain and these other products on a large scale.

OPIUM SMUGGLING IN BURMA.—The Burma Excise Report for 1912-13 states that the seizures amounted to 793 seers, of which 531 seers was detected on ships mostly from Calcutta. The opium revenue of the Province was increased by an advance in the wholesale price of the drug, while the consumption diminished. In Rangoon the taste for opium appears to be losing ground, but the drug is being replaced by morphine and cocaine.

BRITISH SOAP COMBINE IN CHINA.—The formation is announced in Shanghai (says Reuter) of a gigantic British combine for the manufacture of soap and allied products in China, the firms concerned being Messrs. Lever Bros., Ltd., Brunner, Mond & Co., Ltd., J. Crosfield & Son, Ltd., Gossage, and the Erasmic Co., Ltd. Land has been acquired at Shanghai, where a factory equipped with the latest scientific appliances will be established. The nominal capital of the companies is about 35,000,000*l.*, and the combine is believed to be a British record.

AUSTRALASIAN NEWS.

"The Chemist and Druggist" is subscribed for and supplied weekly to all the members of nine Chemists' Societies in Australia and New Zealand.

New Zealand.

SULPHUR DEPOSITS.—H.M. Trade Commissioner for New Zealand reports that important works in connection with the working of the sulphur deposits of White Island, a mountain-top jutting out of deep water in the Bay of Plenty, are to be taken in hand, and for this purpose a new company has been formed, although operations on the island have been carried on for the past eighteen months. The first shipment of sulphur was made in September, and reached Auckland in good condition, from 75 to 80 per cent. being pure sulphur. The company expects to be able to turn out within the next few months pure sulphur to the extent of 500 tons per month.

Queensland.

EXAMINATIONS UNDER TRYING CONDITIONS.—Candidates for the Minor examination will sympathise with their *confrères* in Brisbane on account of the trying weather conditions under which the November examination was held. On the 18th, when the thermometer registered 105° F., candidates were busily punching pill-masses and spreading plasters.

BUSINESS CHANGES.—The old-established firm of Thomason Chater, Ltd., Brisbane, disappears this month from the list of Australian drug-houses. It has been purchased by Taylor & Colledge, Ltd. Of the directors of the former company, Mr. S. Adamson and Mr. A. E. Jeffries retire, while Mr. A. B. Chater becomes a director of Taylor & Colledge, Ltd., and will have charge of the laboratory. Thomason Chater, Ltd., originally had a number of retail branches in Brisbane and district before they became wholesalers, and were formerly known as Thomason Bros. The retail shops have been gradually disposed of, and recently the business has been exclusively wholesale.—Mr. W. A. McGuffie has disposed of his holding in McGuffie & Co. to his partner, Mr. S. Cowell. The business of McGuffie & Co. is the largest retail business in the city, and stands in a prominent position in the main street of Brisbane. Mr. McGuffie will possibly visit the Old Country before he settles down. He has been rather a frequent visitor to London during the last ten years.

Tasmania.

THE OPTICIANS BILL.—Since its introduction two years ago the Bill has been modified, as a result of conferences with pharmacists and others. It is no longer styled "The Sight-Testing Opticians Bill," and the word "sight-testing" has been dropped throughout, in compliance with the wishes of the medical profession. "Optometry," or "the practice of optometry," is defined as "the employment of methods other than the use of drugs for the measurement of the powers of vision and the adaptation of lenses for the aid thereof, and includes the dispensing of oculists' prescriptions for glasses." While the measure was passing through Committee the last clause relating to the dispensing of prescriptions was struck out. The main alteration in the measure is that provision is made for licensing all who apply within six months, and can show that for three years previously they have been engaged in the practice of optometry in the State without examination; but those who pass the prescribed examinations and go through the regular course provided will be entitled to be registered as opticians. Annual fees are to be paid by both classes. A new clause provides: "It shall not be lawful for any hawker or other travelling vendor who is not registered or licensed under this Act to peddle, barter, sell, or offer for sale, exhibit samples of, accept orders or commissions for, or carry stocks of spectacles or glasses." The penalty is fixed at an amount not exceeding 20*l*. There is the usual machinery of officials and examinations.

SOUTH AFRICAN NEWS.

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is subscribed for and supplied weekly to all the members of the seven Chemists' Societies in British South Africa.

Transvaal.

MR. G. W. HAY, lately with Messrs. Lennon, Ltd., has taken over the management of De Hollandsche Apotheek, Pretoria and Pietersburg.

QUININE TABLETS have caused the death of two infants recently. One case was that of a two-year-old boy, who died in Johannesburg Hospital after swallowing some quinine tablets which had been left lying about. The other case was that of the infant daughter of Mr. Sim, of Mafeking, the little girl eating a number of 5-grain sugar-coated tablets.

CHARGE AGAINST A CHEMIST.—The case in which Mr. W. H. Nicholls, chemist, Jeppestown, Johannesburg, is charged with procuring abortion was further inquired into on December 9. (See *C. & D.*, December 20, 1913, p. 54.) The girl upon whom the operation is alleged to have been performed, and who was in a serious condition, has recovered, and gave evidence. One witness stated that Nicholls made a charge of 5*l*. for the operation. The hearing was adjourned.

Exporting to South Africa.

A CORRESPONDENT writes: Large cargo-ships are now coming from American ports direct to South African ports, in part because Americans are working this field at a higher pressure than usual. The drug-trade is the one that *C. & D.* readers are most interested in, and it is to this that reference is made here. Take the largest firm in the world, known familiarly as "P. D." A few years back many South African druggists scarcely knew this concern, except by name; now it would be difficult to find a drug-store anywhere in South Africa that has not a range of "P. D." products. P., D. & Co. could safely offer a prize to the man who could locate a South African druggist who failed to have their products on sale. The name of Colgate stares one in the face in every nook and corner of this vast subcontinent. Less than twelve years ago the average druggist told you he would get a tube of Colgate's, or send out for Colgate's so-and-so. It's a standard line to-day. The Stearns label is to be found in most places where you can find a white man, and in many places where the white man is looked upon as a curiosity. Johnson & Johnson, another American firm, have an organisation in South Africa second to none, and their name is as familiar as, say, that of Beecham. The Chamberlain Medicine Co. have now their own factory in Cape Town. All these firms have their own direct men covering the field, and some of them several men. Many other American firms do considerable trade with South African druggists and storekeepers with profit to themselves and satisfaction to those handling their products. Generally speaking, American manufacturers fail to grasp shipping. The merchandise produced may be excellent in every respect, well packed for export, but shipping documents are not taken seriously. This, of course, means delays and fines, to say nothing of a few more petty troubles and risks. (The remarks do not refer to the above firms.) A fast cargo-steamer from New York to Cape Town, her first port of call, has been known to make the passage in twenty-one days, whereas the mail *via* Southampton, if connection is made, takes at least twenty-four. American shippers, to avoid a possible delay, use the ship's box for their mails, duplicating same by ordinary mail service. As a whole, the British exporter understands foreign shipping and banking better than the German or the American; but importers complain that British invoices are carelessly drawn up in many instances, the writers of such invoices failing signally to appreciate the fact that there is such a thing as a Customs House in South Africa. Again, certain British firms who pose as exporters send merchandise down to the mail-steamer, taking no trouble to get documents off by the same ship, with the result that the cargo is discharged at Cape Town and remains at the docks till the following mail-boat arrives, which means fines and rent, not to mention risk of the cargo getting wet. It is but right to say that the larger concerns exporting to South Africa conduct their shipping on up-to-date lines, thus making the matter of exporting to South Africa easy and clean business. It is the small exporter who knows little about ships and shipping, then

wonders why repeat business does not reach him. This may sound like a chestnut, but it is a fact nevertheless that the writer can vouch for: A London firm sent a small shipment to a Cape Town druggist, who had to give a banker's bond to secure delivery pending arrival of bill of lading. This he wrote for, explaining that he had been put to no end of trouble, needing the bill of lading to get release from his bond. The reply duly came that the shipper could not understand the trouble. The goods were forwarded by a Union-Castle steamer, and the company gave a receipt for same. To prove this the firm attached a copy of the receipt (it was the B.L.), which they "assumed" was what was wanted. Several British houses work South Africa thoroughly, and A. & H. and B. W. & Co. have branches in the country, and employ a staff of qualified men to "detail" medical men, hospitals, etc.

COLONIAL AND FOREIGN NEWS.

DRUGS FOR THE NEW HEBRIDES.—Since October 1, 1913, drugs, chemicals, and medicines, with the exception of patent medicines (*spécialités*) have been admitted into the New Hebrides duty-free. By "patent medicines" are meant all pharmaceutical, patent, and proprietary medicines and preparations which are not recognised by the British and French medical professions.

THE ARGENTINE "PATENTS" TAX.—The enforcement of this tax, which requires the selling-price of perfumery, toilet-requisites, medicinal specialities, etc., to be affixed to their coverings, has been further postponed. The Argentine Ministry of Finance is about to lay before Congress a Bill modifying the above-mentioned law. So our Board of Trade is informed, this confirming our Paris correspondent's report (*C. & D.*, December 13, p. 38).

PORTUGUESE STAMP-TAX.—By a law which came into operation in Portugal on October 14 pharmaceutical specialities of foreign origin imported completely prepared and packed for retail sale, as also foreign mineral medicinal waters, are subject to a stamp-tax of 5 centavos. Pharmaceutical specialities invented and owned by foreigners (*as de autores estrangeiros que nao sejam de livre fabricaçao*), but which are prepared in Portugal, are subject to a stamp-tax at the following rates, even if the proprietary rights be transferred to a Portuguese subject:

When the price of sale to the public, per unit, including the tax, is:	Centavos.
Not more than 25 centavos	5
Over 25 up to 50 ,, ...	10
,, 50 ,, 75 ,, ...	15
,, 75 ,, 1 escudo	20
And for every 50 centavos or fraction thereof in excess of 1 escudo	10

Pharmaceutical specialities prepared abroad, but which are imported in bulk and there bottled or otherwise put up for sale, but not subjected to any pharmaceutical treatment which modifies the imported products, either as regards composition or their form, are subject to a stamp-tax at two-thirds of the rates set out in the preceding paragraph, but not less in any case than 5 centavos per unit. Further particulars will be found in the "Board of Trade Journal," December 18.

FOR CENTURIES PAST THE ITALIANS have had good laws, but their enactment has been quite another thing, and it is questionable whether an infringement of the Italian Pharmacy Acts, whereby a woman was left with a fifteen-year-old youth to conduct the branch of a retail druggist's business, has not led to the following incident reported in the "Corriere della Sera" of December 16. The "Village of the Journalists" is situated in the north quarter of Milan. One of its inhabitants, Luigi Bordini, who has a druggist's business in Via Nino Bixio, had for some time opened a branch there, which was attended by his wife, assisted by a youth of fifteen, named Umberto Martinoli. On the morning of December 15 two respectably dressed young men presented themselves before the woman. One of them asked for some *fernet* (this liquor is much drunk in Italy) and the other begged to be allowed to go to the lavatory. The woman pointed out its direction, but entertained some vague suspicion, and so mounted to her apartment on the floor above, leaving young Martinoli alone in the shop. She became much alarmed on finding one of the strangers in her bedroom bursting open a wardrobe in which she kept jewels of some value. The woman screamed, and the thief, armed with a chisel, straightway began to take to flight. The robbed wife's screams, however, were heard by Antonio Bertolini, a marble-worker, who entered the shop at the moment. He ran upstairs to see what had happened. There he encountered the thief, who faced him boldly, and a furious struggle ensued. The robber, however, managed to break away and re-descend to the shop, where the youth Martinoli was alone, for the other accomplice had bolted at the first alarm. The lad tried to strike the robber with a bottle, but was seized by the throat and thrown to the ground. "I'll kill you if you move," growled the malefactor, and betook himself to flight, pursued, but ineffectually, by Bertolini and Signor Crescini, correspondent of the "Giornale d'Italia," who was passing that way at the moment. The police have been informed of the affair, but no traces of the thieves have been found.

CANADIAN NEWS.

(From the "C. & D." Correspondent.)

"THE RETAIL DRUGGIST OF CANADA" is the title of a new drug-trade paper, No. 1 of which was published in December. It deals with advertising, window displays, and side-lines. The illustrations are well produced on glazed paper. It is to be a monthly publication, the subscription being $1 a year.

SCHOOLS OF PHARMACY.—The Manitoba College of Pharmacy inaugurated on January 1 a two-year course of teaching and study for pharmacy students. It is the first Canadian College to begin a two-year course. The pharmacy department of the University of Saskatchewan was also inaugurated on January 1. The University is at Saskatoon, and the course in pharmacy is carried on as the result of an agreement between the University and the Pharmaceutical Association. The fees for the session January to April are $40.

LABORATORY BULLETINS.—Recent bulletins issued from the Laboratory of the Inland Revenue Department, Ottawa, are No. 261, dealing with tonic wines, and No. 262, referring to lime-juice. No. 261 is in two parts, the first representing twenty-nine different brands of medicated wine, and the second thirty-eight varieties. These were in almost every case proprietary wines, and the chief analyst states: "It is sufficient to say that nothing is found in any of them which need be harmful to the health of the consumer who uses them intelligently." Cocaine was not found in any sample taken since the Proprietary or Patent Medicines Act came into force. The medicament in most cases was cinchona alkaloids, caffeine being present in a few, which were stated to be kola-wines. Some were artificially coloured, and salicylic acid was present in a few cases. Nine samples of iron-wine contained from 0.007 to 0.206 per cent. of iron as Fe_2O_3. Bulletin No. 262 refers to lime-fruit juice, the legal standard for which is as follows:

Lime-juice, lime-fruit juice, is the fresh fruit-juice obtained from lime-fruit (*Citrus Limetta*); has a specific gravity at 20° C. not less than 1.030 and not greater than 1.040, and contains not less than 10 per cent. of solids and not less than 7 per cent. of free citric acid. Its optical activity lies between the limits +0.5° and −0.5° of the Soleil-Ventzke scale when observed in a column of 200 mm. length at 20° C.

Thirty samples were examined, and only five fully met the requirements stated above. At least 30 per cent. of the samples had been reduced by the addition of water. Salicylic and benzoic acids were present in twenty-one samples. Two samples were "Montserrat," and were found to be genuine.

WILLIAM GARVIN and his wife were at Sheffield on December 30 ordered to pay 17s. in respect to summonses for selling deficient sweet spirit of nitre.

Our American Letter.

(Special Correspondence to the "C. & D.")

Alcohol Production.—The 1913 report of the Commissioner of Internal Revenue shows that the production of distilled spirit was 185,353,383 gals., or 71,033,398 gals. more than was produced in the preceding year. The quantity removed from bonded warehouses for consumption exceeded by more than seven million gals the quantity removed in 1912.

Food and Drugs Act Decisions.—The following are additional decisions regarding misbranding of products under the Food and Drugs Act: Drug-habit cure sent out by a doctor without a statement of the quantities of morphine and alcohol in each bottle. Defendant was fined, but has appealed against the decision, one of the grounds being that the Act does not apply to medicines sent out by licensed physicians.—Beeman's pepsin chewing gum. Misbranding alleged because only a minute quantity of pepsin was present in the tablets, and it was labelled "A delicious remedy for all forms of indigestion." A fine of $100, and costs, was imposed.

Sale of Mercury Perchloride.—The Department of Health of New York City has placed restrictions on the sale of mercury perchloride. The amendment of the Sanitary Code which has been adopted reads as follows: "Bichlorid of mercury, otherwise known as corrosive sublimate, shall not be held, kept, sold, or offered for sale at retail in the dry form, except in coloured tablets individually wrapped, the wrapper to have the word 'Poison' in plain letters conspicuously placed, and dispensed in sealed containers of glass, conspicuously labelled with the word 'Poison' in red letters." This ruling does not apply to tablets containing one-tenth of a grain or less of the chemical.

New x-Ray Tube.—Mr. W. Coolidge, Schenectady, who has been working on the subject for some time in the laboratories of the General Electric Company, has invented a new *x*-ray tube, which is a great improvement in the means of producing *x*-rays. The Coolidge tube will not cheapen the cost of production, but will enable radiographers to control the intensity of the rays. Tungsten is the only metal employed in the new tube. The anode consists of heavy tungsten, while the cathode is of light tungsten. In the new tube there is no fluorescence. Streams of charged particles from the tungsten anode and cathode, which are heated in a vacuum, are driven by a powerful electric current, and the rays are formed; these are more or less penetrating in proportion to the speed with which the particles are driven. Hitherto the vacuum of the tube has been the chief factor in determining the penetrating power of the *x*-rays.

British Readers will scarcely appreciate the disastrous effects of cocaine, morphine, and other habit-forming drugs in the United States. Negroes readily fall victims to drugs, and they are prominent among the purveyors of such poisons. The women of the underworld have taken especially to the use of cocaine. During the last year or two a tremendous increase has been noticed in the use of narcotics, particularly among youths and young women. The Federal Government has recently, through Treasury Decision 33,456, installed a complete system whereby the Federal officers will be able to trace every grain of cocaine from the time it enters the country, whether in the form of leaf or alkaloid, until it is consumed. Every person dealing in cocaine will have to file a declaration showing what disposition he has made of the drug. Druggists will have to report under oath to the Bureau of Chemistry in January of each year how much of the drug is on hand, how much has been used on prescriptions, and how much has been sold to other druggists or other persons permitted to handle it.

A.Ph.A.—At the December meeting of the Washington branch of the American Pharmaceutical Association, Mr. W. S. Richardson was elected President, Dr. Rodney H. True and Dr. H. E. Kalusowski Vice-Presidents, and Mr. Henry B. Floyd Secretary. Mr. H. C. Fuller read a paper on "Pharmaceutical Chemistry," which was a plea for more research work in the field of medicinal agents. Mr. Fuller referred to the number of "faked" medicinal articles which have recently been analysed, such as eye-brighteners and wrinkle removers. In the course of the discussion Dr. George W. Hoover stated that the Bureau of Chemistry has much unpublished information concerning these fakes, and if, as contemplated, a bulletin giving this information is published, much of general interest will come out, and there will be some genuine surprises. There has been a decided improvement in the character of pharmaceutical products since the passage of the Pure Food and Drugs Act, and another decade will show even greater improvements, is his belief. "Commercial Alcohol in Germany" was the next paper, by Dr. Rodney H. True, who outlined conditions which have led to the extensive alcohol industry in Germany. The question of the situation of the permanent home for the American Pharmaceutical Association was then discussed, Washington being favoured by the branch.

Our German Letter.

(Special Correspondence to the "C. & D."

Insurance Doctoring.—The extended and amended Insurance law, which was fully described in the *C. & D.*, 1913, I., 15 (exactly a year ago), came into force on January 1. It seemed for some time that the doctors would get the upper hand, but they, like the doctors in the United Kingdom, capitulated at the last moment, their main requirements having been satisfied.

Offences.—For exceeding the charges for prescriptions as established in the official drug tariff, both for private and sick-club patients, an apotheker was sentenced by the Court in Zabern to two months' imprisonment, and this sentence has been confirmed on appeal to the Supreme Imperial Court in Leipzig.—For sending advertisements of an article to prevent conception to persons in Austria and in Holland a pharmacist in Berlin has been fined. He appealed to the Imperial Court in Leipzig, on the grounds that the advertising did not take place in Germany, but abroad, and that the German Court was therefore not competent. His sentence, however, was confirmed.

Alcohol Production.—The annual report of the Spirit Centrale for the year ending September 30, 1913, states that the amount of spirit received by them was 326.4 million litres, as compared with 208.7 million litres in the previous year, of which 302.9 million litres were consumed. The production amounted to 375 million litres, against 345 million litres, and on September 30, 1913, the stocks were 18 million litres more. The sale of industrial spirit increased by about five million litres, while spirit for drinking purposes decreased about six million litres. Export business was practically at a standstill during the past year, the Centrale accounting for this by Russian, Austrian, and Italian competition, fostered by export bounties. Altogether the financial results are not regarded as satisfactory. With respect to the new business year, it is anticipated that in view of the large potato-crop the production of spirit for drinking purposes will be considerable, and will largely exceed the sales, with consequently increased stocks.

Pharmacy in Germany.—The official Prussian pharmaceutical statistics for 1912 show that there were 3,611 pharmacies in Prussia then, of which 787 were privileges. This represents an increase of forty-nine over 1911. In addition, there were 176 branches, 233 hospital dispensaries, and 308 house pharmacies held by doctors, of which 140 were homœopathic. There is one pharmacy for every 10,846 inhabitants. During the year 1,479 places were inspected—viz., 1,252 pharmacies, fifty-four branch pharmacies, sixty-nine hospital dispensaries, and 104 doctors' house pharmacies. In 185 cases there was ground for admonition, and a second inspection had to be made in eighty-six instances, while in seventy-seven cases penalties were imposed. The pharmaceutical *personnel* consisted of 8,751 persons. During the year 198 pharmacies changed hands, of which eight were in Berlin. For 191 pharmacies the sale prices totalled 2,452,665*l.*, an average of 12,841*l.* 4*s.* per pharmacy (privilege). The number of druggists' shops in Prussia in 1912 amounted to 26,199, of which 22,007 were inspected, and transgressions were recorded in 7,906 instances. In 2,126 cases the regulations regarding the sale of poisons were not complied with, and in 2,572 cases the owners were found to have on their premises remedies which may be sold only in pharmacies. In 678 cases bad articles were found, and 2,530 "other transgressions" figure in the report. Fines were imposed in 2,412 instances, and court proceedings took place in 167 cases.

IT IS AN OLD SCOTTISH HABIT to pay off one's debts (if possible) before the year's demise, and most men in business like to see it flourish. The other day a chemist in the capital sent out his apprentice to remind several "deadhead" customers that the year was dying. "Tell your maister, ma laddie," said one old dame, who has been owing 8*d.* since last summer, "tae call himsel', and A'll gi'e him his money, an' a guid dram forbye!"

DEEDS OF ARRANGEMENT.

Watson, John, trading as John Watson & Co., Donegall Street, Belfast, Wholesale Druggist.—Assignment on trust, with a committee of inspection, to secure a composition of 10*s.* in the pound. Dated, December 15, 1913; filed, December 19. Secured creditors' claims, 1,131*l.*; unsecured, 1,569*l.*; estimated net assets, 1,387*l.*

Inglis, Henry, trading as Allan's Drug Stores, Frost Hill, Liversedge, and residing at Jackson's Villa, Mill Bridge, Liversedge. Trustee, H. F. White, 98 Albion Street, Leeds, I.A. Dated, December 15, 1913; filed, December 22. Liabilties unsecured, 94*l.*; estimated net assets, 50*l.* The creditors are: Brook, Parker & Co., Bradford (17*l.*); Hirst, Brooke & Hirst, Leeds (15*l.*); and Raimes & Co., York (14*l.*).

LIMITED COMPANIES.

New Companies Registered.

P.C. means Private Company and R.O. Registered Office.

ROBERTSON, LTD. (P.C.).—Capital 100*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers of and dealers in artificial teeth, etc. R.O., 94 Dundas Street City, Glasgow.

BENJAMIN SHAW & SONS, LTD. (P.C.).—Capital 20,000*l.*, in 1*l.* shares Objects: To take over the business carried on by E. and F. Shaw (Benjamin Shaw & Sons), mineral-water manufacturers, Willow Lane, Huddersfield. The first directors are E. Shaw and F. Shaw.

CLEANSEWELL SPECIALITIES, LTD. (P.C.).—Capital 100*l.*, in 1*l.* shares. Objects: To carry on the business of druggists, drysalters, oil and colour men, etc., and to adopt an agreement with G. J. Fenwick. The first directors are G. J. Bird, A Laban, G. J. Fenwick, and R. B. C. Scruby. R.O., 70 Victoria Street, London, S.W.

SAUNDERS & FISHINGER, LTD. (P.C.).—Capital 5,000*l.*, in 1*l.* shares. Objects: To take over the business carried on by H. W. Saunders and F. Fishinger, manufacturers of and dealers in perfumery, soaps, essential oils, and toilet requisites, etc. These gentlemen are the first directors. R.O., 3 Denman Street, London Bridge, London, S E.

C. A. STOKES & CO., LTD. (P.C.).—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of wholesale, manufacturing, and dispensing chemists and druggists, perfumers, soap-makers, etc , and to adopt an agreement with C. A. Stokes. The first directors are C. A. Stokes and T. G. Elson. R.O., 11 and 12 Lower Castle Street, Bristol.

VITALITE SOCK CO., LTD. (P.C.).—Capital 10,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers of and dealers in loofahs, sponges, boot socks, and other goods, etc., and to adopt an agreement with W. Lawson Dash, who is permanent governing director, with 500*l.* per annum as remuneration. R.O., Plevna Road, South Tottenham. N.

SIR S W. ROYSE & CO., LTD. (P.C.).—Capital 45,000*l.*, in 1*l.* shares. Objects: To take over, as from July 1, 1913, the business of chemical, mineral, and metal merchants and general importers and exporters carried on by Sir Samuel W. Royse at 20 Albert Square, Manchester, as "S. W. Royse & Co." The first directors are Sir Samuel W. Royse. W. H. W. Royse, A. E. Royse, S. Norton, and F. W. Barlow.

MASON & SONS (FINSBURY PARK), LTD.—Capital 6,000*l.*, in 5,000 10 per cent. participating preference shares of 1*l.* each and 2,000 ordinary shares of 10*s.* each. Objects: To carry on the business of manufacturers of and dealers in potted meats, soups, broths, rinds, jams, pickles, cider, table delicacies, restoratives, solid and liquid foods, etc., and to adopt an agreement with Charlotte Mason and Harold Woolley. The number of directors is not to be less than three nor more than five; the first are E. J. Charlesworth and H. Woolley. R.O., 317 High Holborn, W.C.

Company News.

STANDISH CHEMICAL CO., LTD.—Claims to be sent in to Mr. A. H. Scampton, Liquidator, 28 Market Street, Wigan, by January 23. Meeting of creditors at above address on January 7 at 3 P.M.

"RATINOL," LTD.—A statement as to the registered office of this company (see *C. & D.*, December 20, 1913, p. 56) has been filed at Somerset House. The address is 34-36 Oxford Street, London, W.

BIRTHS.

Authenticated notices are inserted without charge.

CONYNGHAM.—At 1034A Sterling Place, Brooklyn, N.Y., on December 16, 1913, the wife of Wm. Boulton Conyngham, Ph.C., F.C.S. (Benger's Food, Ltd.), of a daughter.

DAVIDSON.—At Pietermaritzburg, on December 1, 1913, the wife of George Davidson, chemist and druggist, of a son.

JAMES.—At 3 Glenfall Terrace, on December 27, 1913, the wife of J. P. W. James, pharmacist, Cheltenham, of a daughter.

RANSOM.—At The Chilterns, Hitchin, on December 27, 1913, the wife of Francis Ransom (W. Ransom & Son, Ltd.), of a son.

MARRIAGES.

Authenticated notices are inserted without charge.

BOWNESS—POLSON.—At Holy Trinity Parish Church, Ossett, on December 26, 1913, by the Rev. R. E. Burlingham, M.A., Vicar, William John Bowness, pharmacist, to Emma Polson, both of Ossett, Yorks.

DAVIS—MILLER.—At Plymouth, on December 27, 1913, John Butley Davis, chemist and druggist, to Mary, daughter of Mr. G. Miller, Mount Gold, Plymouth.

HAWTHORNE—NEEDHAM.—At Antrim Parish Church, on December 26, by the Rev. M. F. H. Collis, B.D., Vicar, assisted by the Rev. Robert Duggan, George William Hastings Hawthorne, Ph.C., to Irene (Rene), second daughter of Mr. and Mrs. Needham, Antrim.

MACMILLAN—KAY.—At Gorebridge, Midlothian, by the Rev. J. W. Blake, on December 26, Chas. E. MacMillan (Parke, Davis & Co.) to Annie, daughter of Mr. and Mrs. J. G. Kay, Edinburgh.

TAUBMAN—BLACK.—At St. Marylebone Parish Church, London, on December 24, 1913, Henry Allen Taubman, younger son of the late Mr. Robert Taubman (T. Morson & Son) and Mrs. Taubman, of Provost Road, Hampstead, to Nora Louise, third daughter of Mr. John Black, of Fettes Row, Edinburgh.

TYREMAN—MARSHALL.—At St. Hugh's Church, Lincoln, on December 30, 1913, by the Rev. Monseigneur Provost Croft, Alfred Tyreman, chemist and druggist, 63 Baxtergate, Whitby, to Bertha Cecilia, only daughter of Mr. G. N. Marshall, The Cottage, Riseholme, Lincoln.

WRIGHT—LAWSON.—At the Carlton, Union Street, Aberdeen, by the Rev. James Rae, M.A., on December 27, Charles L. S. Wright, to Cecilia, daughter of the late William Lawson, chemist, Laurencekirk.

DEATHS.

Authenticated notices are inserted without charge.

BALMFORTH.—At 22 Lichfield Drive, Sedgley Park, on December 24, 1913, Mr. Alfred Herbert Rowland Balmforth, for many years with Messrs. James Woolley, Sons & Co., Ltd., Manchester.

EGGLETON.—At Stoke Newington, London, N., last month, Mr. George Eggleton, in his ninetieth year. He was one of the two survivors who joined the firm of Messrs. Hodgkinsons & Co. in Upper Thames Street in 1860, with whom he continued until ten years ago. This firm is now one of those contained in The British Drug Houses, Ltd. Mr. Eggleton was for very many years a resident in Islington, and actively connected with religious life of the North of London. He leaves several sons and daughters.

GORMAN.—At Queen's Parade, Bangor, Co. Down, on December 27, Dr. John Gorman, Ph.C., aged forty-six. He was a leading practitioner of the town, and brother of Mr. T. B. Gorman, The Medical Hall, Bangor. Dr. Gorman became a pharmaceutical chemist in 1891, and studied medicine, taking the triple Scotch qualification

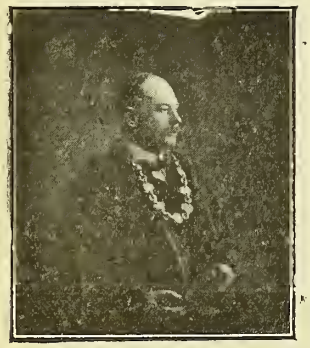
in 1894. He then relinquished pharmacy for medicine. practising first at Antrim and since 1895 at Bangor. He leaves a widow and two children. The funeral took place on December 30.

FLETCHER.—At Ilkeston on December 30, 1913, the wife of Mr. William Fletcher, J.P., chemist and druggist, aged seventy-one.

HORNIBLOW.—On December 29, 1913, Mr. Frederick Herbert Horniblow, chemist and druggist, 33 Sidbury, Worcester, aged forty-four. Mr. Horniblow had not been well for some months and pneumonia supervened a fortnight ago. He assumed control of the business, which was established by his father, the late Mr. W. T. Horniblow, at the latter's death, four years ago. Almost the last meeting he attended was that of the Worcester and District Pharmacists' Association, but he was too unwell to be present at the annual dinner of the Association, which was held on the same evening. Mr. F. H. Horniblow was a keen amateur photographer, being closely associated with the Worcestershire Camera Club almost from its inception. He leaves a widow and one son. At the funeral on Wednesday, the Worcester City and County Pharmacists' Association was represented by Alderman J. A. Steward, J.P. (President), and Messrs. A. E. Coverdale (Hon. Secretary), F. G. Acton, T. Lunn, and W. J. Thomson.

LESTER.—On Summerhouse Hill, near Lynmouth, Devon, on December 26, 1913, Mr. Samuel Lester, chemist and druggist, Lynmouth, aged sixty-one. Mr. Lester, accompanied by his eleven-year-old son, was watching the Exmoor Foxhounds hunting from the crest of the hill when he collapsed and died. The funeral service took place at St. John's Church, and the interment at Countisbury Church, on December 29. A large number of mourners were present, and several beautiful wreaths were sent, including one from the Lyn Lodge of Freemasons.

ROUW.—At Ruthin, Denbighshire, on December 26, 1913, Mr. Theodore John Rouw, Ph.C., aged fifty-three. Mr. Rouw, who was in business at Market Place, Ruthin, as Rouw & Son, passed the Minor examination in 1881 and the Major in the following year. He was one of the most popular men in the Vale of Clwyd, and served on most of the public bodies in the Ruthin district. He was on the Town Council for twenty years, and occupied the mayoral chair for two successive terms—viz., from 1906 to 1908. Mr. Rouw leaves a widow and one daughter.



MR. T. J. ROUW.

STEVENS.—At St. George's Hospital, Bombay, on December 17, 1913, Mr. Walter Stevens, general manager of Messrs. Badham, Pile & Co., Ltd., chemists and druggists, Bombay, Poona, and Secunderabad.

WHITELAM.—At a Hull Nursing Home, on December 27, 1913, Mr. John Herbert Whitelam, pharmacist, 139 Newland Avenue, Hull, aged thirty-nine. Mr. Whitelam, who was apprenticed with the late Mr. Dunlop, had been in business at the above address and at Landesborough Street. He leaves a wife and two daughters. Representatives from the Hull Pharmacists' Association were present at the funeral on December 30.

BENZOL IN CANCER.—Benzol has a local action on cancer-cells. In two cases of inoperable recurring mammary cancer the cancer-tissue was destroyed by the application of benzol, but the deeper cancer-tissue continued unmodified.—*Berliner Klinische Wochenschrift.*

WILLS PROVEN.

DR. WILLIAM CARNEGIE BROWN, M.D., 77 Fitzjohn's Avenue, N.W., and 32 Harley Street, London, W., who died on September 30, aged fifty-four, left estate of the gross value of 49,886*l.* 10*s.*, of which 44,225*l.* 15*s.* 6*d.* is net personalty.

DR. ALFRED RUSSEL WALLACE, O.M., F.R.S., D.C.L., LL.D., Broadstone, Dorset, who died on November 7, left estate of the gross value of 5,823*l.* 0*s.* 6*d.*, of which the net personalty has been sworn at 2,884*l.* 7*s.* 4*d.* He left all the medals presented to him by scientific societies, the insignia of the Order of Merit, his autograph letters, medallions, family portraits, and the author's copy of each of his books to his wife Mrs. Annie Wallace, his daughter Violet Isabel Wallace, and his son William Greenell Wallace, jointly, with remainder to the survivor absolutely.

MR. HAROLD KAY, 18 Lathom Road, Southport, director of Messrs. Kay Bros., Ltd., manufacturing chemists, Stockport, who died on May 31, left estate of the gross value of 20,073*l.* 16*s.* 1*d.*, of which 12,293*l.* 1*s.* 9*d.* is net personalty. Probate of his will has been granted to Mr. Harry Newton, solicitor, Stockport, and Mr. Edward Hardcastle, chemist, Mount Bramall Lane, Stockport. The testator left 100*l.* each to the executors of his will; 100*l.* per annum to his wife for life; and the residue of his estate upon trusts for his daughters Helena Winifred Victoria and Alice Hilda Kay in equal shares.

SIR JOHN BATTY TUKE, M.D., F.R.C.P., LL.D., F.R.S., D.Sc., 20 Charlotte Square, Edinburgh, who died on October 13, left, in addition to real estate, personal estate in the United Kingdom valued at 30,750*l.* The testator directs his trustees to hand over to the Royal College of Physicians, Edinburgh, his bust by John Hutchison, R.S.A., on condition that it shall be placed in the great hall of the College, and the etching of Darwin by Rajor to be added to the portrait gallery of the College. He also directs that his antique Norwegian tankard and silver cigar-box, given him by the widow of Dr. Charles Underhill, be presented to the Æsculapian Club. He gives the Dutch tiles in the study fireplace of his house at Gorgie to the Royal College of Surgeons.

PERSONALITIES.

Authenticated information for this section will be received by the Editor, and published, if not in the nature of advertisement.

COUNCILLOR E. CARDWELL, chemist and druggist, has been appointed by the Lancaster Town Council as a representative charity trustee.

MR. EDWIN THOMPSON, governing director of Thompson & Capper, Ltd., Liverpool, is visiting Russia, where he has business interests, and for the next few weeks no correspondence will be forwarded.

COUNCILLOR AND MRS. JAMES WOODHEAD, on the occasion of their silver wedding, were presented with an inscribed silver egg-stand by the employés of Messrs. G. Woodhead & Son, chemical manufacturers, of Staithwaite, Yorks.

AT THE PRESIDENT'S DINNER to the Council of the Caledonian Society of London, given by Mr. George W. Paton (managing director of Bryant & May, Ltd.), in the Prince's Hall, Hôtel Cecil, on New Year's Eve, Mrs. Lamond Howie replied in a charming speech to the toast of "The Ladies," proposed by Colonel Sir John Young, C.V.O.

MR. RAWSON P. FRANCIS, Ph.C., of Messrs. Duerdin & Sainsbury, wholesale druggists, Melbourne, who has been on a visit to this country since May, sails for Australia by the Orient Line on Friday, January 2. Mr. Francis, who is the brother of Mr. G. Bult Francis, Ph.C., of The British Drug Houses, Ltd., is accompanied by Mrs. Francis and his daughter. His son is remaining as a student at the School of Pharmacy of the Pharmaceutical Society.

MR. CHARLES W. WHITE leaves London on January 2 by the P. & O. Royal Mail steamer *Mantua* for India. Mr. White's health has much improved. He has had many messages of inquiry while at home, one of the latest from India being as follows:

"All India has been in heartfelt sympathy with you in your serious illness. Rejoices to learn that you are about again, and will be happy when you are again in our midst."

Mr. White's residence in India is the Great Western Hotel, Bombay.

BUSINESS CHANGES.

Authenticated information for this section will be received by the Editor, and published, if not in the nature of advertisement.

MESSRS. READ HOLLIDAY & SONS, LTD., have removed their registered offices to St. Andrew's Road, Huddersfield.

MESSRS. BLACKWOOD, BRYSON & CO., East India merchants, have removed from 12 Great Tower Street to 20 Water Lane, Great Tower Street, London, E.C.

THE FRENCH FLINT GLASS BOTTLE CO., LTD., have removed to larger and more convenient premises at 19-20 West Smithfield, London, E.C.

THE SHOP, 64 Stamford Street, London, S.E., has been opened by Mr. W. J. Hopkinson for Insurance Act dispensing, attendance being given from 10 A.M. to 2 P.M., and from 6 to 10 P.M.

MESSRS. DIPNALL & CO., Colonial brokers, 14 Mincing Lane, London, E.C., intimate that Mr. James H. Norton, who has been associated with the firm for twenty-three years, has been admitted into partnership.

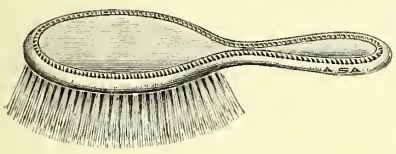
SENORES LOMBA Y JEANNOT have notified us that they have removed from Calle del Carmen 20 to Marques de Cubas 5, Madrid, and that Don Norberto Recalde y Bassols has ceased to hold their procuration.

MESSRS. HAW & CO., drug brokers, C18 Exchange Buildings, Liverpool, intimate that their head office is now established at 21 Mincing Lane, London, E.C. The business will be under the management of Mr. Frederick Massey.

TRADE NOTES.

THE THERMOGENE CO., LTD., certainly know how to help retailers to sell their product. In connection with their new year's advertising scheme they offer a bonus to chemists.

THE A.S.A. HAIR-BRUSH.—This is a new hair-brush, manufactured by Messrs. M. Neuhafer & Levi, 11 Fore Street, London, E.C., at their London factory in Upper Clapton Road. It differs essentially from hair - brushes hitherto produced in being cased in silver-bright aluminium, while the whalebone bristles of which it is made are securely inserted in the interior. The aluminium is specially tempered and untarnishable, so that it is possible to thoroughly cleanse the brush by washing either with soap and hot water or with any antiseptic solution, so as to completely remove every particle of scalp débris or other matter out of place which may adhere to the brush, thus ensuring its asepticity at every washing; consequently it is in the true sense of the term a hygienic brush. It is pleasant in use, and looks like silver on the toilet table. Messrs. M. Neuhafer & Levi are bringing the brush out at a popular price, each one being enclosed in a box. The firm will give further information to retailers and wholesalers on application. The form of the brush which we have inspected is shown in the figure. It may be noted that "Silwyr" is the trade-mark applied to the brush.



A LETTER FROM PASTEUR, dated Strassburg, July 6, 1850, has been issued in facsimile by E. Merck, Darmstadt, to whom it was sent by the Dean of the Strassburg University, it being a request by Pasteur to him to get from Merck 200 grams of asparagin and 200 grams of malic acid. The text is as follows:

MONSIEUR LE DIRECTEUR,—Vous connaissez les recherches chimiques qui m'occupent depuis longtemps et sur lesquelles j'ai déjà publié deux Mémoires qui ont reçu l'approbation de l'Académie des Sciences et qui sont insérés dans les Annales de Chimie et de Physique. Je les continue cette année et je compte présenter aux vacances prochaines à l'Académie des Sciences un nouveau travail pour lequel je possède des résultats que je crois importants. Malheureusement et surtout cette année mes études ont porté sur des substances d'un prix très élevé, telles que l'asparagine, l'acide malique, l'acide fumarique, etc. Le crédit dont je dispose à la faculté est épuisé et j'adresse aujourd'hui même à Monsieur le Doyen pour la transmettre au Conseil académique ma demande d'un crédit supplémentaire de 500 fr. J'explique aussi dans cette demande comment par la nature de mes recherches particulières j'ai dû faire cette année des dépenses assez considérables. Je viens, Monsieur le Directeur, vous demander si l'Ecole de Pharmacie voudrait acquérir en ma faveur des produits dont je disposerais; à peu près comme si, étant professeur en titre à cette école, je voulais exécuter dans son Laboratoire un travail particulier. Bien entendu je m'engagerais à remettre à la collection de l'Ecole les produits constatant les résultats de mes recherches. Je bornerais ma demande à l'achat de

200 grammes d'asparagine,
200 gr. d'acide malique,

produits que M. Merck livre aux prix suivants:

Asparagine ... ... 20 fr. 25 l'once
Acide malique ... ... 8 fr. l'once.

Recevez, Monsieur le Directeur, l'assurance de mon profond respect.

L. PASTEUR.

Strasbourg, 6 Juillet, 1850.

It is an interesting souvenir of the great *savant*, who at that time had not dreamt of microbes, and was still a pure chemist, with a distinct turn to the physical rather than the physiological side.

TRADE-MARKS.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist Diary," 1914, p. 237.

Objections to the registration of any of the undermentioned applications must be stated on Form T.M. No. 7 (obtainable at Money Order Offices for £1) and lodged with Mr. W. Temple Franks, Comptroller-General, Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned.

(*From the "Trade-marks Journal," December 24, 1913.*)

"SANOINE"; for ointment (3). By W. L. Hampton, 9 Scott Street, Perth, Scotland. 354,046.

Circular label, with words "DR. M. BOASE'S FEMALE PILLS" and facsimile signature "JAMES TRESTRAIL"; for pills (3). By J. Trestrail, 14 Claremont Road, Redruth, Cornwall. 354,247.

"EUZATE"; for medicinal chemicals (3) and for perfumery (48). By D. Turle, 78 Rue Taitbout, Paris. 354,654/5.

"SAL-NATIN"; for an aperient salt (3). By Evans Sons Lescher & Webb, Ltd., 56 Hanover Street, Liverpool. 354,765.

"SPASMOSAN" and "VERONACETIN"; for medicines (3). By R. & O. Weil, 9 Friedberger Anlage, Frankfort-on-Main. 355,154/5.

"GERMOIDS"; for medicines (3). By Mary Veno, Beauthorn House, Delamere Road, Bowdon, Cheshire. 355,209.

Label device of lady and child, with words "ROSS'S LIFE PILLS," etc.; for pills (3). By The Sydney Ross Co., 147-153 Waverly Place, New York City, U.S.A. 355,840.

"ASTGAR"; for asthma-powders (3). By H. E. Matthews, Ltd., 66 Kennington Park Road, London, S.E. 356,415.

"VI-CASEIN"; for casein (3). By Casein, Ltd., Culvert Works, Sheepcote Lane, Battersea, London, S.W. 356,515.

"OMEGA," for goods (11); "LISTRAL," for indiarubber sheets, etc. (40). By J. G. Ingram & Son, Felstead Street, Hackney Wick, London, N.E. 356,086, 356,405.

"MONSOON"; for indiarubber goods (40). By Levetus & Co., 194 Bishopsgate, London, E.C. 355,208.

"ROLLASTIC"; for indiarubber elastic webs (40). By Olney Amsden & Sons, Ltd., 9-11 Falcon Street, London, E.C. 356,348.

"RANJANA"; for perfumery, etc. (48). By The Erasmic Co., Ltd., Bank Quay, Warrington. 356,217.

"TITTERTON * LONDON"; for brushes (50). By Titterton & Howard, 8 and 10 Great Titchfield Street, London, W. 354,659.

WINTER SESSION

of Meetings of Trade Associations.

Others are reported under "Insurance Act Dispensing" when the subjects pertain chiefly to that Section.

Folkestone.—At the annual meeting of the Folkestone and District Chemists' Association, Mr. A. H. King, of the West Cliff Pharmacy, Bouverie Road, and Mr. Frank C. Jones, of the Central Pharmacy, Cheriton Road, were elected President and Secretary of the Association in succession to Messrs. J. Stainer and F. G. Curtis. The last-mentioned gentlemen have held office for several years, and have given freely of their time and energy in furthering the objects of the Association, and the cordial thanks of the members were accorded to them. It was decided that a special effort should be made to bring into membership all those interested in the craft who are resident in the neighbourhood.

Glasgow. A special meeting of the Glasgow and West of Scotland Chemists' Association was held in the Association's rooms, 190 West Regent Street, on December 19, to hear a lecture by Mr. Frank Curry, of Burroughs Wellcome & Co., on *Tuberculins, their Standardisation and Preparations.* Mr. Curry first dealt with the history of the tuberculin treatment, and then described how the tubercle, after being taken from the sputum of a person suffering from tuberculosis, is passed through a guinea-pig. The animal is then killed after a certain time, and the bacilli grown on brain agar until a pure culture is obtained, minute and elaborate precautions being taken to exclude every other organism than tubercle. It is then grown on veal bouillon, and next undergoes a process of filtration and standardisation. The lecturer then mentioned the tuberculins at present in use, their methods of use both for diagnosis and treatment, and the way in which the doses are graduated. He showed a fine set of specimens, among which was a particularly perfect specimen of tubercle growing on the surface of the veal bouillon, another culture on a plate of brain agar, and side by side in two tubes the bovine and human tubercle, showing the marked difference in the appearance of the colonies. Mr. Curry received a hearty vote of thanks.

Liverpool.—A mass meeting of the pharmacists of Liverpool was held on Tuesday evening, December 30, at the Royal Institution, Colquitt Street, to discuss the Federation scheme of the Pharmaceutical Society. Mr. H. Humphreys Jones, F.C.S., presided, and among those present were Messrs. John H. Robinson (Hon. Secretary), L. Moreton Parry, T. H. Corlett, M. S. Hughes, C. E Jones, G. H. Aris, J. McInroy, B. Cluett, J. H. Egan, H. Pect, M.A., J.P., W. H. Clubb, E. Prebble, H. H. Marsden, D. H. Evans, R. S. Carrie, Harold Wyatt, C. A. Maries, Geo. Inman, R. E. Lloyd, J. L. Hirst, G. V. C. Last, L. V. Angel, J. Plevin, and G. J. Kelly. The President, in explaining the main features of the scheme, complained that the non-panel chemist had no voice in the election of delegates to the conference, and contended that the General Purposes Committee should have power to elect a representative as well as the Pharmaceutical Committee. He also considered that the proposed constitution of the General Committee on Insurance is not representative in that the Pharmaceutical Council has arrogated to itself the right of nominating nine out of the fifteen members. It would have been far better had the Council appointed the whole Committee from its own members, rather than make it appear democratic. Mr. J. G. Wallbridge was of opinion that the scheme would not be acceptable to the chemists of the country. Mr. Hirst asked Mr. Parry, as member of the Pharmaceutical Council, why the Council should elect nine members on the General Committee on Insurance. Mr. Parry replied by stating that the Council could have elected the whole Committee, but it was considered wise for the Insurance Committees to have a voice in its proceedings. Mr. G. V C. Last proposed the following motion:

"That the Pharmaceutical General Committee should consist of twenty-one members: seven to be members of the Council of the Pharmaceutical Society, ten representatives of English Pharmaceutical Committees elected on a territorial basis, two representatives of Welsh Pharmaceutical Committees, one representative of Scottish Pharmaceutical Committees, and one representative of limited companies."

Mr. Wyatt seconded the motion. Mr. Last, in supporting his motion, mentioned that the Standing Committee has had practically one-third of its members nominated by the Society, and they never had any difficulty in carrying out any suggestions which they brought forward from the Council, and there was no reason why the Council should now elect nine members who could out-vote the representatives of the Insurance Committees, who were elected on a democratic basis. Imagine, he said, the unfairness of the proposed constitution of this Committee, 123 Pharmaceutical Committees only having three representatives. The whole scheme savoured of distrust of Pharmaceutical Committees and of chemists generally. Mr. Wyatt objected to the description of the scheme, and suggested that it should be changed from "Organisation of the Society" to the "Organisation of the Society for Insurance Act Purposes." During his rather pungent remarks Mr. Wyatt observed that the Council must have had a rather low estimate of their intelligence in putting forward such a scheme. Mr. Hirst was strongly of opinion that the members of the Council should be nominated in the ordinary way by the local committees, and elected in a democratic way by the delegates like the other members of the Committee. An amendment was moved by Mr. H. H. Marsden, and seconded by Mr. L. Moreton Parry—viz.: "That the Pharmaceutical Council must have a working majority on the Pharmaceutical General Committee." This was put to the meeting and lost. Mr. Last's motion was then carried by a large majority. Messrs. Last and Hirst were nominated to represent Liverpool at the conference in London on January 21.

FESTIVITIES.

Social Evenings.

THE annual social evening of the Belfast Pharmacy College was held at the above Institution, Wellington Place, Belfast, last week, Mr. J. Cherry, M.A., the Principal, in the chair. After tea there were songs, recitations, and speeches. The health of the Chairman was drunk, and a happy evening was brought to a close by the singing of "Auld Lang Syne."

ABOUT a hundred employés of Rajar, Ltd., photographic film and paper manufacturers, Mobberley, and their friends were entertained to tea and a social evening at Altrincham on December 20. There were present Mr. C. F. S. Rothwell (managing director), Mr. C. H. Stables (secretary and cashier), Mr. H. H. Law (sales manager), and Mr. F. G. Tompsett (chemist). After tea dancing, whist, and singing filled up the evening.

THE annual social evening of the Dundee Chemists' Assistants' and Apprentices' Association was held on December 17 in the F. & K. Halls, when about seventy members and friends were present. Mr. A. Soutar presided, and a most enjoyable programme of music was rendered by Misses Collie, Ogilvie, Forbes, Shields, Welsh, and Gillespie, and Messrs. Taylor, Donachie, Dick, and Smith. Violin selections were given by Mr. Mudie, and dancing was also indulged in under the guidance of Mr. James Robertson. Miss Watson presided at the piano. The evening proved very enjoyable, and was terminated at 2 A.M. by the singing of "Auld Lang Syne."

POISONING FATALITIES.

SEVEN deaths from the effects of poison have come before our notice this week:

Aconite Liniment, lent by her brother, a panel patient, was responsible for the death of a Sunderland woman. At the inquest the Coroner remarked that the practice of insured persons giving medicine to other people is very prevalent, and it ought not to take place, as it defeated the object of the National Insurance Acts.

Ammonia caused the death by misadventure of Michael Rochford at Leicester.

Carbolic Acid was used for suicidal purposes by Mrs. Bowback (34) at Battersea.

Laudanum.—John Stanworth (65) committed suicide at Mexborough with this drug.

Liniment.—Alexander Mudie (58), carter, Dundee, died in the Royal Infirmary after drinking some poisonous liniment.

Prussic Acid was the suicidal agent used at Dover by Frederic Annandale H. Snow (19), engineering student.

Spirit of Salt.—Charles Holding (20), barman, who died in the University College Hospital, London, W., poisoned himself with spirit of salt.

BEEF-TEA TABLETS.—Analyses of "bouillon cubes" by the United States Department of Agriculture shows that common salt forms from 49 to 72 per cent. of the total weight of the cubes of ten leading brands manufactured in the United States and Germany.

Almanacks and Calendars.

MR. H. R. MAYNARD, The Pharmacy, Horncastle, and Woodhall Spa, sends us a copy of his Household and Farm Almanack. It is a yellow-covered book of 150 pages, and the whole of the literary matter has been specially prepared. There are calendar and diary pages, and lists of proprietary articles, druggists' sundries, specialities, and farm requisites. Mr. Maynard emphasises the optical and aërated-water branches of his business.

MESSRS. F. WOLFF & SOHN, 82 Hatton Garden, London, E.C., and Karlsruhe, send out a dainty coloured and perfumed eight-page booklet entitled "Opera Stars." This is delicately perfumed, and contains five illustrations from popular operas, the one forming the cover being a scene from *Tristan and Isolde* in relief. The interior is devoted to a calendar for 1914 and various toilet specialities of the firm, the back page of cover being an illustration of their works at Karlsruhe.

MESSRS. A. & E. BAILEY, chemists, Highgate, London, N., have issued to their customers a calendar for 1914, containing an old print of The Spaniards Inn, Hampstead Heath, as it was early in the nineteenth century, and it has not changed much in appearance since The calendar has monthly tear-offs, and a description of the inn, which it may be recalled was effectively used by Stanley Weyman in one of his fascinating tales, the building having been the country residence of the Spanish Ambassador to the Court of St. James's in Tudor times. Messrs. Bailey effectively work in a history of their pharmacy with their notes on the Inn.

MR. EDMUND JONES, chemist, Hanley, is an artist in the designing and production of printed matter relative to his business. His 1914 calendar is a mascot bearing a picture of a black cat and a white one embracing each other, with the inscription "A fellow feline makes us wondrous kind." He sent out with it a quarto address entitled "Perfumery for Presents," a four-page card folder on Eddy's Royal Trentham Bouquet, which is his speciality, and a large four-page folder with views of Trentham Hall and Spring Valley, Trentham Woods on the front cover, particulars of the Bouquet and Eddy's Dermatine being given in the interior. Pure pharmacy was not forgotten, as Mr. Jones's handbill, reproduced in the *C. & D.* a year ago, was also included.

THE "PERFUMERY RECORD" YEAR-BOOK AND DIARY appears this year for the first time. The "Perfumery and Essential Oil Record" was established by Mr. John C. Umney, F.C.S., in 1910, and has now reached the dignity of a year-book and diary. This contains diary pages and literary matter, the latter consisting of a review of the past four years' work on essential oils and perfumery, the import duties levied by various countries on perfumery and soaps, an article on the analysis of essential oils, and tables of constants, constituents, antiseptic power, and variations in value of essential oils. These are all appropriate to the year-book, and make it a useful and desirable publication for those who specialise in the essential oil branch of chemical industry. The work is published at 2*s.* 6*d.* by Messrs. G. Street & Co., Ltd., 8 Serle Street, London, W.C.

THE BRITISH DRUG HOUSES, LTD., 22-30 Graham Street, City Road, London, N., have again issued their "Lest I Forget" Calendar, which has a page for each month of the year, and a space against each day for memoranda. Each page is printed in black and red inks, and there is an announcement or one or two reminders on each of the sheets. We quote three of them:

January. "New Lemon, Bergamotte, and other Italian Essential Oils arrive during this month, and can be supplied in perfection"

June: "New unset Jamaica Honey may now be obtained in crocks, tins, and casks suitable for potting; also packed ready for retail."

August: "New Henbane, Belladonna, Digitalis, Hemlock, etc., also Green Extracts, are now ready."

The cover of the calendar bears engravings of five views in the company's laboratories and warehouses, and on the reverse of this is printed a pithily-written address, the first two paragraphs of which we quote:

From time immemorial the most valued medicines have been of vegetable origin The vegetable kingdom still furnishes the most powerful and the most universally prescribed remedial agents we possess, as well as the greatest number. Yet it is well known that such drugs vary considerably in action and in strength.

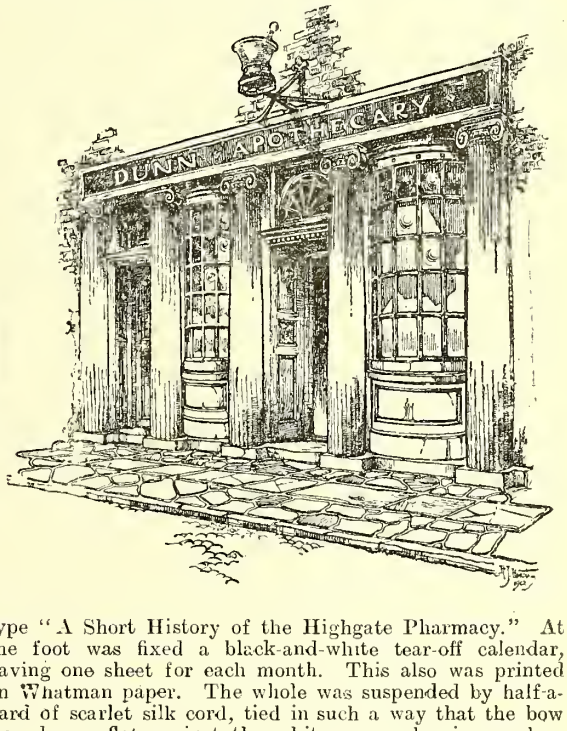
Scientific investigation has traced these variations and the consequent failures to two chief causes—one, the ignorant selection of imperfect or false varieties; and the other, deterioration through unskilful handling and unsuitable or protracted storage.

Any chemist who has not received a copy of the calendar can get one on application to the company at the address given.

A Chemist's Calendar.

TO the 1911 Winter Issue of the *C. & D.* I contributed a few notes on the prescriptions found in the old books belonging to the Highgate Pharmacy. Since then we have been able to compile an interesting history of the old shop, and to use it in connection with a very artistic calendar embodying the old frontage.

The calendar was printed on good white Whatman paper, a sheet, 7 in. by 9½ in., bearing nothing but the picture of the shop, inserted in a sheet of stouter paper, 8 in. by 13½ in., upon which was printed in old-fashioned



type "A Short History of the Highgate Pharmacy." At the foot was fixed a black-and-white tear-off calendar, having one sheet for each month. This also was printed on Whatman paper. The whole was suspended by half-a-yard of scarlet silk cord, tied in such a way that the bow was drawn flat against the white paper, leaving a clear loop behind to hang over the nail. The finished article had a high-class, chaste appearance, and it constituted one of the best advertisements we have ever had.

We believe this pharmacy to be one of the oldest in North London. At one period the name of Mr. L. Casella appears among the prescriptions, and on further inquiries we find that he was the discoverer of the clinical thermometer, who lived in a house opposite the pharmacy. In another place there are two pages of prescriptions for Dr. Gillman, the surgeon in whose house Samuel Taylor Coleridge lived for nineteen years. He came to Highgate to be cured of the opium habit, and there is not the least doubt in our minds that the medicines necessary in Gillman's treatment of Coleridge came from the Highgate Pharmacy. Dr. Thomas Southwood Smith, born in 1788, who first distinguished himself while yet a young man by his treatise on epidemic fever, and was afterwards so instrumental in improving the health of towns, lived for a considerable time at Highgate, and had his tooth-powder made up regularly at the Highgate Pharmacy. There are prescriptions, too, for his granddaughter, Miss Octavia Hill, then a little girl in her teens. Michael Faraday lived at Highgate for a short time, and a prescription for Mr. Faraday in Hornsey Lane, where Michael used to live, was in all probability

for the celebrated scientist. Many instances like these have come to light during our search, as well as many curious old recipes.

"Trueman's Aromatic Black Draught" in June 1848 was prepared after the following manner :

Put into a jug 1 oz. of Senna leaves and put into a saucepan Ginger bruised and Cloves of each 1½ drams, Black Licorice ℥ drams, add ½ pint of water, and boil. When boiling pour all into the jug and allow it to remain covered for two hours. This done, mix into it 3 oz. Epsom Salts and let them stand for another half hour, after which strain it all and add three teaspoonfuls of Tincture of Senna and two teaspoonfuls of Sal Volatile. The usual dose is three tablespoonfuls taken in the morning.

Here is another curious prescription :

Ext. Belladonnae gr. 8. Aq. Rosae ℥j.

Dr. Locock's Specific for Scarlet Fever, to be taken three times a day in a little water for twelve or fourteen days. 12 to 15 drops for an adult, 5 to 6 drops for a child of six years, as a preventative against catching the disorder.

In the latter years of the eighteenth century there stood at the corner of Townsend's Yard, High Street, Highgate, a small shop kept by an apothecary whose name is lost in the forgotten years, but who established the chemist's business now carried on by us. High Street then was an unlit narrow country road, and at No. 64 the old White Lion Tavern stood. This was a sixteenth-century posting house, famous for its large gardens and fashionable assemblies. Here balls were held and plays enacted. Marston the actor performed there on one or two occasions. Parts of the old walls still exist in the gardens at the back of the pharmacy, and some of the cellars under the shop would seem to have been the wine-cellars of this old tavern. The White Lion, falling into decay, was taken down, and a new building erected on its site, into which Mr. Dunn, the pharmacist of that day, moved his business in 1829. Since then several generations of pharmacists have come and gone. Messrs. Dunn, Lloyd, Haines, Capner, Harris, Birrell, and Wilkins carried the business to the end of the nineteenth century, and left an unbroken record of their labours in the prescription-books which still exist. These books form a directory to all the notable residents in Highgate during the last hundred years. These include Dr. Gillman and Dr. Southwood Smith, already mentioned; Lord and Lady Stormont, Judge Payne, the Countess of Dufferin, Thomas Coutts (the father of the Baroness Burdett-Coutts), the Duke and Duchess of St. Albans, Sir Sydney Waterlow (Lord Mayor of London), Dr. Grainger, F.R.S., and the Earl and Countess of Mansfield. From the many household recipes of the last-named, the following is quoted because of its quaintness :

OINTMENT FOR ERUPTION OF THE SKIN.

Take a large handfull of Water Cresses in the rough state, the same of House Leeks, the same of Pennywort Leaf pounded well in a mortar. Half pound of fresh Butter not washed from the Dairy; add all these into an earthen Pipkin, simmer it over the fire until it becomes a Juice, squeeze it through a coarse cloth, then add to it half pint of Cream, one ounce of white Rosin pounded very fine, and when boiling stir the Rosin into it, put it into a Bason until the next day, then take the Ointment off the top and clarify it in the same way as you would clarify butter.

This prescription was dispensed in 1830. At the foot of one of the prescriptions the doctor remarks : "My friend Mr. Dunn will be particular about the drugs."—*Arthur E. Bailey.*

"PREPARED MEDICINES" to the value of 5,397*l.* were shipped to the French Ivory Coast during 1911, of which the U.K. sent 2,660*l.*, France 1,641*l.*, and Germany 1,094*l.*

TEST FOR IODINE IN URINE.—Lesser ("Berliner Klinische Wochenschrift"), in an article on the determination of iodine in the urine, gives the following simple test: Stir with the end of a match a little calomel into a few drops of the urine on a slide or card. If it contains iodine the calomel turns bright yellow. Iodine in the saliva can be detected in the same way if the patient spits on a little calomel. Another way to reveal the presence of iodine is by touching the tongue with a silver-nitrate stick. The mark left by the caustic is not white, but yellow, in case the individual has been taking iodine.

Postal Address:
C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.
Telegraphic Address: "CHEMICUS CANNON LONDON" (two words).
Telephone Number: BANK 852 (two lines).

INFORMATION WANTED.

Postal or telephone information as to the names and addresses of the agents for or makers of the undermentioned articles is solicited. Please address as above.

146/18. "Epignel": who supplies?
69/70. "Esska" tropical suspensory bandage.
62/8. "Allshorn's influenza Specific" (formerly of 51 Edgware Road, W.).
72/1. Spiracin: suppliers.
71/74. Lilburne's ether-flasks: actual makers.
73/28. "Vaporal."
55/58. Importers of Derris (root of *Derris elliptica*), used as an insecticide.
71/21. "British" carbolic soap.
54/43. Crême Georgia.
59/57. "Noroma" powder.
59/570. Nicoll's pain-cream.
59/571. "Sirbiquin" (Johnson's).
54/430. "Albion Hair Naturaliser."
56/56. "Allroy," for colouring a cock's comb.
55/71. Oxygen apparatus for asthma.

INFORMATION SUPPLIED.

Inquiries in regard to the following articles have been answered. The information will be given to others who send a stamped and addressed envelope for it to the above address.

Autotherm flask, 64/57
Benzokinone c. heroin hydrate, 71/59
Bromo-Styrol, 47/69
Citronnade, 68/61
Colgate's soaps (London agents), 71/61
Confectionery machinery (for India), 67/42
Cream of tartar substitute, 68/18
Crême Rhea, 70/23
Cremoline, 66/74
Domette bandages, 65/74
Dring & Fage's thermometers, 68/73
"Economic" feeding-bottles, 71/32
"Elasta" tooth-picks, 64/67
Electric pocket lamps, 71/38
Eucalyptol ramel, 70/24
Euchrisma, 73/28
Formalin mint tooth-powder, 63/51
"H. G." hair-grower, 61/12
Hall's wine, 65/65
Hands' (Dr.) teething-lotion, 69/9
Heald's dog-medicines, 68/60
Homoloids, 71/60
"Horizon" soap, 71/21
"Hosezene" sanitary towels, 70/24
Hydrogen-peroxide cream, 67/11
Individual Communion cups, 61/64
Iosorptol, 67/37
"Iroma" perfume, 59/571
James's horse-blister, 71/74
Kasemol, 59/575
"Kleeno," 63/26
Marshall's giant cement, 66/72
Mawson's capsules, 69/630
"Mosana" towels, 69/901
Non-poisonous disinfectants (for Trinidad), 66/130
Nostrones, 70/22
Nurse Harvey's preparations, 69/900
Optocine, 70/240
Petalias extract, 66/73
Photographic plates (special), 63/20
Pills (to special formula), 46/30
Potter's asthma-cure (for India), 69/10
Radiamic clay (for U.S.A.), 67/21
Rubber rings for aërated-water bottles (for Trinidad), 66/13
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APPRECIATION.

From a Country Chemist:

"Thanks for your kind letter with address. I will not forget to mention THE CHEMIST AND DRUGGIST for giving me all information. What a mine of wealth is in the journal. I may remind you that I am a very old subscriber (since 1875), and recommend it at every chance to my friends." (197/47.)

OBSERVATIONS AND REFLECTIONS.

By Xrayser II.

Christmas and the New Year

come so close together under the new style as to form virtually one festival, and the disorganisation of business extends over the whole period. This may seem a somewhat sordid reflection at such a time, but it is no worse than the whole conception expressed in the phrase "Christmas trade." By the time these words are read the holidays will be over; my friend Byles round the corner will be putting away the fancy bottles of scent in cardboard boxes labelled "The Compliments of the Season," which have for the third or fourth time almost persuaded him that he is "in the swim" with other tradesmen at Yuletide, and he will be wondering (as I am) whether, after all, he really makes anything out of this annual display. No doubt the smart men in great thoroughfares whose windows blossom out into fairy forests of Christmas-trees and bowery hollows crowned with scented soap make it pay, but I am more than doubtful about Byles, and for myself have decided that (to quote Mr. W. H. Davies with a difference):

This is no time to make, but spend.

It is, however, to the New Year that I am looking now, and

My New Year's Wish

for every pharmacist is that the difficulties and disagreements that have arisen in the working of the Insurance Act—so far, at any rate, as they affect him—may speedily be adjusted. Hitherto we have been working the Act more or less tentatively; but this cannot continue for ever. We have had misgivings on several points, and it is not in human nature that we should throw ourselves heartily into the work until these are removed. We have given hostages to the Government, and have fulfilled our contract loyally; we have now a right to demand better treatment than many of us have received, and the Pharmaceutical Society, since it refuses to recognise any other organisation as our representative before the Commissioners, must be made to realise that the future attitude of the trade towards it depends upon its action now. Every other aim must be subordinated to that of the redress of our legitimate grievances. It is only by doing its best to win our battle for us, irrespective of membership, that the Society can extend its own borders, but I believe that a generous and bold policy now would have that among other effects. In any case, every nerve ought to be strained to make our position as dispensers under the Act completely and permanently satisfactory.

The Legal Reports

in your issue of December 27 were unusually interesting, and some of the decisions present fresh examples of the glorious uncertainty of law, while they also seem to prove that justice is not always synonymous with equity. I shall look forward to the result of the white pepper appeal, in the expectation that last week's decision will be reversed. If the decision on the restrictive agreement appeal is to stand it means that most agreements of this character will in future be, even more than they have been, so much waste paper. The Judges were all agreed that the extraordinary view that the restraint was operative only while the employé was in the employer's service was untenable, but the majority, nevertheless, held that the restriction was too wide, and thus unreasonable. The obvious reply to this is that the employé signed the agreement with his eyes open.

Catching a Tartar

is a mild experience compared with the fate that has overtaken Mr. C. T. Allen, who is probably sorry he spoke. I would like to take his side and attempt to hold the bridge with him, but it would be a forlorn hope; the army of facts is too big, and nothing in sight will prevent that army marching to victory. In other words, when the long-talked-of Dental Amendment Act materialises the dental chemists will go on the register just as sure as the sun will rise to-morrow morning. And why not? As your correspondents point out, the public convenience demands an immensely larger number of registered dentists than at present exist, and of the unregistered men who have practised dentistry in the past no class have a better right, because none have more knowledge, to be put on the register than the dental chemists. If we carry Mr. Allen's principle to its logical conclusion no pharmacist has any right to undertake chemical analysis, since there are hundreds of F.I.C.s trained for the purpose, nor to spot a tubercle bacillus, since this work belongs to the bacteriologist, nor to correct an astigmatism, since we have not been trained in ophthalmology; in fact, Mr. Allen would be entitled to question our right to sell P.O.P. unless we were qualified photographers! Indeed, there is no limit to the way in which an ambitious pharmacist would find his energies circumscribed.

The Cost of Living

has, we are told by statistical experts, increased by about fifteen per cent. since the present century came in. This must mean, among other things, that tradesmen in general have considerably raised their prices, not necessarily to get a larger profit than formerly, but it may be merely to retain the old rate of profit on what now costs them more. But whatever the cause, retailers must have raised their prices. It is notorious that "the working classes" everywhere are demanding higher wages on this account; post-office employés, and, in fact, Civil servants in all departments, are doing the same, and the ordinary citizen of small means finds it harder to live than ever. It is not necessary to add that chemists share the burden of this increased cost of the necessaries of life; but my impression is that they are not recouping themselves as they ought to do by a corresponding increase in their own charges. Why do they not share in the general upward movement? Perhaps in some branches of the trade they do; yet I cannot think that we are getting anything like an average increase of 15 per cent. on the prices of fourteen years ago. Thanks to the P.A.T.A., we are getting a little more profit out of patents than we did towards the close of last century, but this is probably more than balanced by the drop in the profit on dispensing and general retail. Why do we suffer this? We are, so to speak, being bled at both extremities, and the fault must be our own.

The Food and Drugs Figures

quoted in your article on local government are an indication that there is still work for the "inspector." I find that the five "drugs" most frequently below standard are chlorinated lime, 44 per cent.; tincture of senna, 35 per cent.; sweet spirit of nitre, 31 per cent.; glycerin of borax, 28 per cent.; and iron pills, 26 per cent. It is quite easily understood why chloride of lime (how often, by the way, is it sold as a drug?) and sweet spirit of nitre come out high. I cannot understand why more than one in three samples of tincture of senna are below standard, while the rate as regards tincture of rhubarb is only one in twenty-five. Glycerin of borax is another mystery, but I take it that the trouble here is due to carelessness in its preparation, and not to fraud. Lime-water with only 11 per cent. of bad marks comes out much better than I would have expected, and so does almond oil with a similar figure. On the whole, the figures, which give an average of exactly 9 per cent. below standard, are not unsatisfactory, though they give an indication that advantage would soon be taken of any laxity of administration of the Acts, were such to be permitted.

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Editorial Articles.

1864—1914.

In this week most men count the milestones in their lives, reflect upon the past, and resolve to do better in 1914. For ourselves we notice that this number begins the second half-century of the enlarged CHEMIST AND DRUGGIST. From September 1859 to December 1863 our page was an octavo; on January 15, 1864, the printed page became a quarto of two columns measuring nine inches long by three inches wide. It is so still. Fifty years ago much of the matter was printed in nonpareil type, an indication of pressure on the space, for we only use it now under that condition. Then we printed 20 pages per month at the most. The volume for 1864 amounted to 200 pages; now 2,000 pages a year is the rule.

In looking through the 1864 volume we are struck by the similarity between the subjects of the three most prominent events and of those which are in prospect for 1914. In 1864 the first British Pharmacopœia was published, pharmacy legislation took a new direction, and the Pharmaceutical Council was apathetic as to trade matters, showing marked indifference to trade opinion. From these events lessons may be learnt for 1914. The first British Pharmacopœia was short-lived. It was advertised for sale in January 1864; our first article upon it (J. C. Braithwaite and J. C. Brough were the writers) appeared in the February issue, and by May the Pharmacopœia had been withdrawn. It was followed by another edition in 1867, a third was published in 1885, a fourth in 1898, and we are promised a fifth this year. Five editions in fifty years is the ideal, but once every ten years is what is wanted rather than the erratic publications of the General Medical Council. We wonder what the British Pharmacopœia 1914 will be. Pharmaceutical chemists have done a lot of work for it without fee and, as far as we know, little favour. This circumstance will be kept in view when the fifth edition is published, for when that occurs pharmacists will make a definite move in regard to their share in the preparation of the sixth edition. The legislation contemplated in 1864 was as to the registration of chemists and druggists in Great Britain. The Pharmaceutical Council was petitioned by 300 of its members to call a meeting to decide whether a Bill for this purpose should be promoted or not. The meeting was held and legislation decided upon. It was not until 1868 that the legislation became effective in the Pharmacy Act of that year. In this the assistants' examination of the 1852 Act was adopted as the standard of qualification for chemists and

druggists. In 1914 the Pharmaceutical Council will introduce into Parliament a Bill to institute an examination for the qualification of assistant to dispensing chemists. The analogy with 1864 is thus singularly appropriate in two respects. The third will not, we trust, be in 1914 a repetition of 1864. Indifference to trade opinion has been the besetting sin of the Pharmaceutical Council. In 1864 when the 300 members petitioned the Council the whole body of chemists and druggists was clamouring for statutory recognition; and the United Society of Chemists and Druggists had drafted a Bill for that purpose, which was called an Act of Incorporation. As soon as the Executive Committee of that Society knew of the proposed general meeting of the Pharmaceutical Society, it approached the Council asking for a conference. The result is best told in the terms of a resolution then adopted by the United Society's Executive—viz.:

"That the Executive Committee of the United Society of Chemists and Druggists, in accordance with the desire of their district committees, having addressed a letter to the Council of the Pharmaceutical Society suggesting that a conference be appointed to consider certain propositions highly affecting the interests of the entire trade, and calculated to promote a friendly co-operation, now express their deep regret that their application has not been responded to."

Thus sat upon, the younger Society took its own way and the Bloomsbury one another until they were brought to reason by Parliament. Not dissimilar circumstances now lie before us in regard to pharmaceutical service under the National Insurance Act. There are indications that the Pharmaceutical Council is on the verge of repeating the blunder of 1864, by insisting on a way of its own as to the linking-up of Pharmaceutical Committees. This is not a time for dictating to the trade, but the Society and the trade are, like two nations fully armed, sufficiently strong to trust each other to do the right thing in conference, and thus avert a repetition in 1914 of the 1864 disaster. And for our part? In the words of the Retrospect (p. 72), "We are what we have always been—the Journal of the trade from which we take our name, devoted to the interests of its members."

Pharmacy Inspection.

All German pharmacies are subjected to a strict periodical inspection by officials appointed by the Government, and even the pharmacist with the most tranquil conscience that his house is quite in order views the expected visit with some apprehension, as he is always in doubt as to what unknown misdemeanour may be discovered. The inspection varies somewhat in the several States; in some a Government pharmacist acts as inspector, in others the district medical officer of health, and in some the latter is accompanied by a Government pharmacist or a pharmacist nominated as inspector. The inspection usually takes place every two years, the date being kept a profound secret. The usual procedure is for the inspector or inspectors to enter the pharmacy in the morning and make themselves known. First of all there is a good look round: shelves are examined to see if they are dusty, drawers are opened, and woe betide the owner if the duster is rather dirty, or if there are too many uncleaned spatulas in one drawer, for a note is immediately made. The tincture bottles are examined to see that the contents are quite clear, and that there is no deposit. Then the inspector proceeds to test the specific gravity of about a dozen liquids. Following this he tests at least two official chemicals, and examines a few powdered drugs under the microscope. A thorough examination of non-public parts of the pharmacy follows; the laboratory is well searched to see that everything required is there and that the whole is tidy and clean; the cellar and storeroom are also inspected, a hunt being made for superfluous stock kept in paper bags, and for articles bearing labels with the name in black instead of red letters. Corners are searched for possible solutions or made-up powders, tablets, or pills which may not be kept as such ready for dispensing. The graduated measures and balances required in the poison cupboard are noted, and even the assistant's room may be looked into. The eagle eyes of the inspector are quick to note as a "monitum" the slightest thing to be recorded against the owner; the books are inspected, the record of purchases and of the analyses of stock received, the list of preparations made in the pharmacy, the poison-book and the poison counterfoils, and a number of prescriptions are gone through to see that they have been correctly charged. The apprentice is asked a few questions, and when the report is drawn up it is signed by the pharmacist. The report goes to the Government, and if the inspector has found something to admonish, the pharmacist must rectify it within a given time, and two months later the district medical officer drops in to see that this has been done. For some time past Prussian pharmacists have complained of the vexatious character of these inspections, and have said that too frequently the inspector magnifies unimportant faults. These complaints have now attracted the attention of the authorities, and the police president of Berlin has publicly declared that he has no official knowledge of complaints regarding the vexatious character of inspections of pharmacy. However, he is prepared to take into consideration the publication of the whole of the reports made by the inspectors, should he think this step justified by further complaints as to the manner in which inspections are conducted. Nevertheless, German pharmacists may sigh for the comparative freedom which British pharmacists enjoy, and some of the latter have reason to be thankful (from one point of view) that inspectors of pharmacies are yet a thing of the future with us; while from another point of view some might benefit by a periodical visit from some one who could help them to keep their pharmaceutical house in order.

Pharmacopœial Doses.

We have referred to a proposal made in the medical Press to adjust the strengths of tinctures so that the doses of various groups, distinguished by prefixing "per" and "sub," are the same. This has not excited much discussion from medical men, but has been supported in unexpected quarters. The proposal is somewhat startling to those who remember the opposition which medical men have raised to the insertion of doses in Pharmacopœias. The attitude was that drugs have no doses in the ordinary sense. The pharmacologist administers a quantity of a drug and, watching the effects, continues to increase the dose until the desired action is obtained. That this is not carried out in practice does not need stating. A correspondent in the "British Medical Journal" writes regarding the adjustment of the strength to the dose:

It would be interesting to know whether manufacturing chemists would be opposed to the necessary alterations in strengths of tinctures, etc.

The strength of tinctures is only of importance when regarded from the point of view of providing sufficient menstruum adequately to exhaust a drug, but in some cases—*e.g.*, tinct. capsici—the desire has been to enable a

dose of a very pungent substance to be administered within reasonable limits. Attempts have been made to obtain metric adjustments of ingredients and by international agreement to issue in all countries potent galenicals of definite strength. Apart from the confusion and possibly accidents which would result from the institution of another set of standards for tinctures, it does not seem to be the province of "manufacturing chemists" to object to prepare medicaments of any strength desired by the prescriber. In a letter to our contemporary (November 29) Dr. R. W. Leftwich returns to the subject, and suggests the division of official tinctures into three groups by using "pertincture" for all tinctures with a dose of 5 to 15 minims, "tincture" for those with a dose of ½ to 1 drachm, and "subtincture" for those whose dose is 2 to 4 drachms, and bringing divergents into line with these three standard doses. He adds :

"Fanciful or æsthetic objections are but as dust in the balance compared with the enormous boon to the prescriber of knowing that each group-name has always the same dose. We should be sometimes in an awkward position but for the chemist's query as to the dose meant, and, instead of being ruffled, we should be grateful to him. But it must be remembered that if the chemist is too busy to look up the point, even he may pass a dangerous dose; and, without his books, he may know as little about doses as the doctor. I have been assured that before the Insurance Act came into force there were numbers of chemists who dispensed on an average only one prescription a week! It is therefore often a case of the blind leading the blind, but with this difference, that not they only, but the public fall into the ditch."

The suggestion as to names is ingenious, but what about the physiological activity of subtinctures? Will the alcohol or the drug in the tincture be the more grateful and comforting to the patient?

The Coloured Supplement

of THE CHEMIST AND DRUGGIST, which for so many years has been the recognised advertising medium for selling and buying businesses and obtaining assistants and situations, concluded last week the busiest year of its existence. From figures which the Publisher has supplied us with we find that there has been a very large increase in the number of advertisements for assistants wanted, the announcements of situations open having been practically double those of the previous year. This is owing to the demand for assistants caused by the increase in dispensing under the Medical Benefit administration of the National Insurance Act, and in a lesser degree by the Shops Act. We believe, however, it reflects an improvement in the general prosperity of the drug-trade which will continue. We are glad to have been the means of placing in touch during the year many thousands of masters and men and buyers and sellers of businesses. Our contention is emphasised that the Coloured Supplement is *the* medium for business men who look for speedy results.

The Census of Chemists.

THE census of Great Britain and Ireland which was taken in 1911 showed the population of England and Wales to be 36,070,492, Scotland 4,760,904, and Ireland 4,390,219. These figures in the aggregate are greater than those of 1901, England and Wales to the extent of about 3½ millions, and Scotland about 300,000; but the figures for Ireland show a decrease of about 70,000. The reports of the census are drawing near an end. Already about twenty volumes of tables have been published. They are a mine of information, but are interested particularly in the figures regarding the chemical and drug trades. The following are given under "Chemists and Druggists" in the reports of the respective countries :

	Males.	Females.	Total.
England and Wales	26,851	5,390	32,241
Ireland...	2,230	87	2,317
Scotland	3,782	863	4,645

These figures include employés. In England and Wales amongst the males there were forty-four between ten and thirteen years of age, 288 between thirteen and fourteen, and so on up to the majority, while there were 1,102 persons of sixty-five years and upwards. It is interesting to note that of the females engaged in the business in England and Wales, 4,636 were unmarried, 493 married, and 261 were widows. The figures for chemists and druggists in Scotland show that not only is the proportion of females to males higher in Scotland than in the other two countries, but the number of females is increasing, while that of males is decreasing. Thus, in 1901 there were 617 females in the drug-trade in Scotland, and 4,010 males. In the same class of statistics are given figures for manufacturing chemists, the number of employers and employés in England and Wales being 21,563 males and 7,047 females; in Ireland 210 males and seven females; and in Scotland 3,849 males and 743 females. These figures are independent of the alkali industry, of which the figures for England are 11,910 males and forty-two females, in Scotland fifteen males and thirty-four females, and in Ireland five males only. Since 1901 the Scottish alkali industry appears to have collapsed, the number of males then being 139, but it is obvious that classification has something to do with this, and that the leading "manufacturing chemists" also cover the alkali industry.

The Chemists' Ball.

THE time draws nigh when thoughts of the jubilee of this annual function will begin to materialise, for on the 14th of this month the forty-eighth ball will be held at the Hôtel Métropole, London. The following lines, written by the late John Cargill Brough, published in THE CHEMIST AND DRUGGIST, December 15, 1869, in regard to the ball held in Willis's Rooms, St. James's, on January 19, 1870, are as appropriate to-day as they were then :

"My friend, you're looking very strange,
Let me prescribe a little change,
And anti-hypochondriae fare;
Your black looks give us all the blues,
You'd better mind your P's and Q's,
Or you your customers will scare!

Suppose you try our magic pill,
A remedy for every ill,
For vapours, megrims, sulks, and glooms.
This sugar-coated pill we call
Among ourselves 'The Chemists' Ball'—
And Willis sells it at his Rooms."

The committee arranging this year's ball consists of Mr. Edmund White, President; Messrs. C. H. Hampshire, J. F. Harrington, V. C. Hewlett, Geo. A. Lansdown, T. D. Morson, Alfred C. Preston, J. W. Roberts, John C. Umney, Chas. H. Warner, W. J. U. Woolcock, and Alan Francis, 22-30 Graham Street, City Road, London, N., Hon. Secretary, under whom the ball has taken on a sweet-pearl coated aspect. Mr. Francis asks us to state that applications for tickets should be made to him as early as possible. The Stewards should let Mr. Francis know not later than January 10 how many tickets they have disposed of. Mr. Francis is prepared to make arrangements for reserving tables for small parties who would like to sup together in the middle of the dance.

Insurance Act Dispensing.

A Weekly Record of events and decisions concerning Chemists' interests in Medical Benefit administration and practice.

Medical Benefit Illustrated.

THE ETERNAL QUESTIONER.

Reports from Local Centres.

With special reference to the supply of medicines and appliances. See also Winter Session.

Aberdeen is given prominence in the local Press as having earned another record by having the largest drug-bill in Scotland (1*s.* 11*d.* per insured person). It is stated that the doctors, "with noble self-sacrifice, are not putting themselves about to secure the floating sixpence."

Berwick.—The County Insurance Committee, at a meeting held in Duns on December 27, considered an application by Dr. Georgeson (Lauder) to continue dispensing on the capitation basis. The Chairman pointed out that this application was for a commission to continue the dispensing generally, and on his suggestion it was agreed to ask Dr. Georgeson to furnish a list of patients beyond the mile-limit, showing also their difficulties in getting drugs. In the course of the discussion Dr. Macvie (Chirnside) contended that chemists wish to get a branch of a business which they have never hitherto enjoyed.

Birmingham.—Pharmacists have received payment of their accounts for the first three quarters, and there is little doubt about the fourth quarter's payment, although the Suspense Fund will be encroached upon.

Bolton.—The new chemists' agreements have been sealed, the number of persons on the list of chemists now being thirty-six.

Brighton.—The Insurance Committee on December 23 decided to pay each quarter 75 per cent. of the amounts of chemists' accounts as received.

Burnley.—The Insurance Committee on December 30 received a report from Mr. F. P. Pick (Hon. Secretary of the local Chemists' Association) stating that the revised Tariff had been approved at a joint meeting of medical men and pharmacists. These were also of opinion that poison-bottles should be charged to insured patients in order to induce them to return them, as, if left about the house—possibly partly filled with highly poisonous ingredients—they constituted a real danger. It was also recommended that a central depôt be established for the purpose of lending out splints and other expensive appliances. The question of excessive prescribing having been raised, particularly in regard to malt extract and cod-liver oil and A B C liniment, it was resolved to send out a circular letter on behalf of the Insurance Committee to panel doctors asking them to use discretion in prescribing malt and oil, and reminding them of the possibility of surcharging. The Commissioners wrote refusing to sanction a deposit scheme as regards poison-bottles.

Caithness.—At a meeting of the County Insurance Committee in Wick on December 27 a letter was received from the County Pharmacists' Association protesting against doctors being paid by capitation for medicines dispensed. The Commissioners had written stating that they do not approve of such payment generally, and suggested that the Committee should confer with representatives of doctors and chemists, with a view to ascertaining in what cases dispensing by doctors should be permitted. Mr. W. Cumming (chemist, Thurso) said that county chemists object to medical men being paid for dispensing by capitation, and added that chemists have a wider range of drugs and are better dispensers than the doctors. Dr. Kennedy (Dunbeath) maintained that Mr. Lloyd George intended that doctors in rural districts should receive the capitation grant for drugs, and declared that the doctors would decline to dispense medicines except by capitation payment. The Committee decided to continue capitation payment, one member dissenting.

Carnarvonshire—At the last meeting of the Insurance Committee it was stated that the eighty-one doctors on the panel would, on the basis of the past quarters, receive 11,314*l.* a year, of which nearly 1,200*l.* would be in respect of drugs. The sixty chemists had been paid at the rate of 538*l.* per quarter during the past nine months, and it is now practically certain that their accounts will be paid in full. The revised Tariff and chemists' agreements have been approved.

Dumbartonshire.—Representatives of the Medical and Pharmaceutical Committees have met and agreed upon points upon which they had differed. As to "Rural areas," the following interpretation of Clause 12 in the Medical Benefit Regulations was drawn up:

> "There are certain districts without a chemist, and having no convenient means of communication with an area containing a chemist, where it is of advantage to the insured person to obtain the necessary drugs and appliances from his panel doctor; if therefore the practitioner resides in such a district, or has made arrangements to supply the wants of his patients in an open surgery in the district itself, such districts shall be regarded as rural. In towns where the doctor resides, and a chemist's shop is situated, the districts around shall not be regarded as rural."

This waits the agreement of the respective Committees.—The following Pharmaceutical Committees have been elected for the county districts:

Clydebank Burgh.—Messrs. Cockburn (Spite & Co.), Grierson, Guthrie, Robertson, and Weir. First meeting January 16 at 3 P.M.

Dumbarton Burgh.—Messrs. Babtie, Hudson, Mitchell, Smith, and Thomson.

Dumbarton County.—Messrs. Campbell (Alexandria), Gardiner (Milngavie), Jarvie (Kirkintilloch), Mitchell (Dumbarton), Sinclair (Helensburgh), Smith (Alexandria), and Weir (Clydebank). First meeting January 14 at 4 P.M.

Fife.—All chemists in the county have signed on for another year.

Glasgow.—The 1914 panel contains the names of 192 chemists and druggists.

Isle of Wight.—The Insurance Committee at its December meeting adopted the revised Drug Tariff, subject to the approval of the local Medical Committee and the Insurance Commissioners. Payments to chemists for the quarter ending October 14 amounted to 383*l.* 1*s.* 7*d.* For dispensing in rural areas 134*l.* 1*s.* had been paid to medical men, being at the rate of 1*s.* per insured person for the half-year.

Kesteven (Lincs).—The revised Drug Tariff has been adopted, with the elimination of the clause relating to distilled water at the request of the local Medical Committee. A new form of prescription-book has also been approved.

Kirkcaldy.—At a meeting of the Burgh Insurance Committee on December 24 it was agreed, on the motion of Judge Peebles (chemist), that panel doctors should extend their consulting hours by half an hour on Mondays and Thursdays, but that they should have no consulting hour on Wednesday evenings. Judge Peebles said that the proposal was tabled entirely in the interests of harmony and good feeling. It was really a compromise with the doctors. A member asked why the doctors could not take Thursday evening off, and to this Dr. Wallace replied: "We want to enjoy ourselves with the shopkeepers."

London.—The revised Drug Tariff, 1913, submitted by the County of London Insurance Committee, has at last been approved by the National Insurance Commissioners. This Drug Tariff is the one which dates from April 13, 1913. The approval is retrospective, which means that the pricing carried out under that Tariff is now in legal form. The Commissioners have also approved the 1914 Drug Tariff, with the alterations agreed upon by the Committee. These include the deletion of the copying-fee and the minimum fee per prescription. Several of the "dispensing notes" which were not of a character for embodying in a legal document have also been struck out. The authorised Drug Tariff is, however, acknowledged to be an improvement on the Tariffs that have preceded it.—The first meeting of the new Pharmaceutical Committee will be held on January 8, an hour before the mass meeting of London and Middlesex chemists announced in our "Coming Events" column. The business to be transacted will probably be confined to the election of a chairman and secretary.

Manchester.—The following notice has been issued by the Manchester Pharmaceutical Association's Insurance Committee to the panel chemists:

You are aware a deputation was appointed to wait on the Commissioners, the result of which is as follows:

Drug Fund Deficit, 1913.—The Commissioners insist that before considering the question of a grant in aid the Regulation 46 (under which doctors may be surcharged for extravagant and too frequent prescribing) shall be fully and thoroughly complied with both by doctors and chemists.

Guarantee for 1914.—An arrangement was arrived at which there is little doubt will safeguard your interests.

This was accepted by us, and an undertaking was given by the doctors that it should be carried out efficiently so far as they were concerned. In due course you will be notified what help you are expected to give in carrying out the Commissioners' requirements.

Nottingham.—A new form of duplicate prescription-book has been adopted to save copying-fees.

Pembrokeshire. Payments to chemists for the last quarter amounted to 289*l.* 8*s.*, being 75 per cent. of their accounts. Power has been given to pay the remainder as soon as certified.

Plymouth.—The Insurance Committee on December 29 adopted a resolution from the Medical Benefit Sub-Committee that the Three Towns Friendly Societies' Medical Institution should not be recommended to the Commissioners for their approval, on the ground that the treatment given by the Institution is inadequate.

Sheffield.—The list of panel chemists for 1914 has undergone very little change; a few of the outside drug-vendors have dropped out, while a new registered company has joined for two shops and one or two pharmacists.—The Pharmaceutical Organisation Committee met on December 23 to consider the dispensing of proprietary articles for insured persons. The Chairman (Mr. H. Antcliffe) and Hon Secretary (Mr A. H Culverhouse) were instructed to interview the Chairman and Secretary of the Medical Committee, and place the views of the panel chemists before them.—The supply of vaccines and sera is being allowed for a limited time, when the question of supply is to come up again for further discussion.—Eight panel doctors, covering the suburban districts of Woodseats, Loxley, Fulwood, Ecclesfield, Dore and Totley, Wincobank, and Intake, made application some time ago to the Insurance Committee to be allowed to dispense for insured patients in these areas, the total number claimed being 1,455. The Pharmaceutical Committee asked the Insurance Committee for particulars of all the streets claimed, and on going into the distances with an enlarged scale road map the pharmacists were successful in retaining the dispensing of between 400 and 500 insured persons.

Surrey.—The Insurance Committee at its meeting on December 22 decided that hemorrhage arising from extraction of teeth comes within the scope of Medical Benefit. The local Medical Committee disagree with this finding, and the matter will have to be submitted for decision by referees under Regulation 55 of 1912. It was reported that permission had been given to forty-one persons to make their own arrangements, bringing the total up to 838. The issue of twenty-five "travellers'" vouchers was recommended. The number of insured persons on October 12 was 200,269. In connection with Clause 2 (ii) of the draft medical agreement, it was stated in a report by the Medical Benefit Sub-Committee that the Committee's Chairman had been verbally informed by the Insurance Commissioners that the retention of the word "accept" would not preclude a panel practitioner from accepting a present offered to him by, or on behalf of, an insured person. The Insurance Commissioners had written stating that they noted that certain prices in the Drug Tariff submitted for approval were in excess of those generally adopted, and inquiring the reasons which had led the Committee to agree to those charges. The Sub-Committee resolved to point out to the Commissioners that the revised Tariff for drugs, appliances, and dispensing charges was adopted by the Committee after consultation with doctors and chemists in the county, and that they be requested to approve the Tariff in the form submitted. Further, that the notes at the end of the Tariff be adopted as part of the agreement with chemists, subject to the deletion of the paragraphs headed "Appliances," "Disinfectants," "Foods," "Trusses, etc.," "Wines and spirits." It was stated that the chemists' agreements were still in hand. The report was adopted.

West Riding Yorks.—In this district some pharmacists feel that they were not getting their proper share of Insurance dispensing. One energetic chemist who looked into the matter found that all the patients of one or two doctors were being dispensed for under the rural-area provision He measured distances, and made representations that the medical men give prescriptions for persons resident within a mile, with the result that 400 insured persons were taken off the doctors' list as regards capitation-fees for drugs, etc.

PHARMACEUTICAL COMMITTEES.

The following is a list of Pharmaceutical Committees, with their members, which we print by courtesy of the National Insurance Commission (England). The Roman figures in parentheses refer to Part I: Registered Pharmacists; Part II: Representatives of Electors not Entitled to Dispense; and Part III: Other Members.

The most prominent feature is the endeavour to give territorial representation on the Committee in each area, even the county boroughs being divided in many cases into districts. Another outstanding fact is the lack of Part II members in many areas. In a few areas, such as Leeds, London, Oldham, and Sheffield, more Part II candidates put up for election than there were vacancies, but in no case were they successful in getting an extra seat. Where candidates were nominated under Part III these were only elected by arrangement with chemists.

County Pharmaceutical Committees.

Bedfordshire.—(I) E. F. Bathurst (Woburn Sands); W. S. Clark (Luton); J. Flemons (Dunstable); F. Perkins (Bedford); H. Samuel (Leighton Buzzard); J. B. Taylor (Bedford). (II) *Nil.* (III) E. P. Chantler (Luton); S. E. White (Bedford).

Berkshire.—(I) J. H. Davis and H. R. Metcalf (Newbury); T. J. Oakley (Thatcham); A. B. Reynolds (Wallingford); M. C. Rock (Maidenhead); R. Sandwith (Bracknell); A. Upson (Maidenhead). (II) *Nil.* (III) *Nil.*

Buckinghamshire.—(I) C. Grier, F. J. Janes, and E. T. Palmer (Aylesbury); J. W. Smith (Stony Stratford); F. W. Taylor (Newport Pagnell); H. E. Walden (Slough); R. T. Wylie and H. E. Young (High Wycombe). (II) *Nil.* (III) *Nil.*

Cambridgeshire.—S. F. Barker, A. S. Campkin, J. Evans, H. Flanders, H. Norrish, E. S. Peck (Cambridge); A. Coulthard (Sawston). (II) *Nil.* (III) *Nil.*

Cheshire.—(I) D. M. Corlett (Boots, Ltd., Hyde); J. Cumming (Crewe); J. W. Deakin (Northwich); T. H. Duncalf (Macclesfield); F. E. Evans (Lymm); S. Evans (Boots, Ltd., Northwich); G. Humphreys (Northwich); F. W. Scanlon (Altrincham); A. Simpson (Stalybridge); H. W. Wallis (Ellesmere Port); W. H. Watkinson (Congleton); G. F. Wild (Hyde). (II) *Nil.* (III) *Nil.*

Cornwall.—(I) J. H. L. Bonney (Falmouth); A. Bond (Newquay); H. H. Cannon (Penzance); A. C. Gee (Redruth); W. T. Hall (Truro); W. A. Masters (St. Austell); S. M. Northey (Bodmin); W. Pickard (Bude); J. E. Poad (Looe); A. F. H. Stephens (Camborne); A. Wood (Truro). (II) *Nil.* (III) *Nil.*

Cumberland.—(I) F. B. Bennett (Whitehaven); J. Cowper (Penrith); D. W. McVitie (Maryport); T. Ridley and F. Ritson (Carlisle); A. Sewell (Boots, Ltd., Carlisle); H. Smith and J. R. Taylor (Workington); S. C. Sproat (Wigton); T. W. Townley (Keswick); J. T. Wright (Egremont). (II) *Nil.* (III) *Nil.*

Derbyshire.—(I) J. A. Cope (Derby); E. Crossley (Boots, Ltd., Derby); H. G. Fletcher (Eckington); J. Gelsthorpe (Long Eaton); F. McKinlay (Glossop); J. Osborne (Ashbourne); C. W. Ridyard (Codnor); J. H. Shepherd (Burton-on-Trent); I. Sutcliffe (Buxton); W. Taylor (Heanor); C. H. Twelves (Whittington Moor); R. Wright (Buxton). (II) *Nil.* (III) *Nil.*

Devonshire.—(I) J. H. Bibbings (Newton Abbott); S. S. Brown (South Molton); E. Calkin (Salcombe); R. D. Doble (Tavistock); H. W. Gadd, W. W. Pine, and P. F. Rowsell (Exeter); F. Maitland (Stonehouse); F. March (Torquay); J. H. Scott (Ilfracombe); W. J. Shepperd (Barnstaple). (II) *Nil.* (III) G. Packham (Exeter).

Dorset.—(I) T. G. Aitken (Upper Parkstone); H. Ayre (Poole); J. W. Cussons (Dorchester); R. H. Groves (Blandford); F. Hancock (Weymouth); J. A. Haynes (Parkstone); W. S. N. Merrick (Dorchester); B. H. Randall (Wareham). (II) *Nil.* (III) *Nil.*

Durham.—(I) R. S. Backhouse (Durham); G. A. Brown (Shildon); R. Cubey (Blaydon-on-Tyne); W. Forster (Seaham Harbour); E. Gregory (Stockton); A. Harburn (Bishop Auckland); A. E. Houfton (Consett); W. C. Longstaff (Fence Houses); A. Peverell (Bishop Auckland); C. A. Sharp (Darlington); J. F. Simpson (Felling-on-Tyne); J. W. Sterling (Birtley). (II) *Nil.* (III) *Nil.*

Gloucestershire.—(I) J. Chambers, T. T. Dolman, T. H. Hawley, W. H. Hill, C. H. James, and H. Miller (Cheltenham); S. J. Coley (Stroud); A. L. Hall, W. H. Hampton, J. S. Palmer, and H. P. Turner (Gloucester); L. L. Stroud (Tewkesbury). (II) *Nil.* (III) *Nil.*

Herefordshire.—(I) W. R. Bufton, G. Donaldson, W. J. Fortman, J. J. Jackson, and W. Marchant (Hereford); W. M. Ellwood and R. B. Sandiland (Leominster); T. Matthews (Ross). (II) *Nil.* (III) *Nil.*

Hertfordshire.—(I) D. W. E. Barker, R. Bennison, and E. R. Samways (Watford); F. W. Cannon (Baldock); J. M. Clouting (Hitchin); E. H. Fisher (St. Albans); J. Hayllar (Hoddesdon); S. T. Milbank (Bishops Stortford); J. T. Sambrook (Barnet); A. J. Sheffield (Hertford); A. R. F. Wheatley (St. Albans). (II) E. Matthews (Royston). (III) *Nil.*

Holland, Lincs.—(I) E. A. Bailey, W. Bullivant, B. J. Kent, A. Mitchell (Boston), E. W. Bell and R. S. Donnington (Spalding); L. F. Saunders (Boots, Ltd., Spalding); C. Wass (Holbeach) (II) *Nil.* (III) *Nil.*

Huntingdon.—(I) W. H. Alexander (Boots, Ltd., Peterborough); J. W. Beck (Huntingdon); H. J. Dukes (St. Neots); H. J. Morgan (Kimbolton); H. E. Noble and J. G. Sturton (Peterborough); A. H. Palmer (Ramsey); H. S. Turner (St. Ives). (II) *Nil.* (III) *Nil.*

Isle of Ely.—(I) P. H. Davies (March); F. Gibson (Littleport); W. R. Girling, M. Herrod, M. Hill, and F. Oldham (Wisbech); W. Lincolne, sen. (Ely); M. Sharpley (Whittlesea). (II) *Nil.* (III) *Nil.*

Isle of Wight.—(I) H. W. Barford and E. W. Pollard (Ryde); W. A. S. Bayliss and A. Millidge (Newport); W. T. Deeks (Shanklin); O. E. Hickson (Ventnor); H. J. Sadler (Cowes); F. Woollings (Sandown). (II) *Nil.* (III) *Nil.*

Kent.—(I) W. E. Clarke (Strood); A. F. Corfe and F. J. Oliver (Maidstone); J. H. Cuff, R. M. Ewell, G. F. Forster, and J. T. Withers (Dover); J. E. French (Sittingbourne); J. Hewlett (Margate); A. E. Hobbs (Tunbridge Wells); A. W. Hudson (Cranbrook); G. P. A. Hunt (Tunbridge Wells); H. D. Keif (Bromley); W. H. Mattock (Woolwich); H. C. H. Oliver (West Malling); C. J. Turner (Folkestone). (II) *Nil.* (III) *Nil.*

Kesteven, Lincs.—(I) H. G. Byron, W. D. Cox, B. Fillingham, H. Hopkinson, B. G. Skipworth, and G. E. Whysall (Grantham); J. S. Prior (Stamford); W. Spyvee (Sleaford). (II) *Nil.* (III) *Nil.*

Lancaster.—(I) T. H. Coates (Manchester); A. L. Crabtree (Oldham); H. Eastwood (Nelson); T. H. Heyes (Ulverston); E. Jenson (Darwen); J. Kershaw (Rochdale); C. A. Maries (Waterloo); A. Peake (Earlestown); H. S. Phillips (Wigan); W. I. Scholes (Eccles); W. Thornber (Accrington); J. Vince (Lancaster); H. A. Watkinson (Farnworth); W. B. Woode (Ormskirk). (II) J. J. Howarth (Shaw); J. Parkinson (Oldham). (III) *Nil.*

Leicestershire.—(I) C. J. Avery and W. T. Hind (Leicester); G. J. Baldwin (Loughborough); J. H. Land (Coalville); K. Nixon (Hinckley); P. C. G. Stiles (Market Harborough); A. Whittaker (Boots, Ltd., Loughborough). (II) A. W. Holmes. (III) *Nil.*

Lindsey, Lincs.—(I) C. H. Ashton (Grimsby); J. W. Carr and J. Forrester (Cleethorpes); F. W. Dennis (Louth); H. P. Fletcher (Scunthorpe); H. C. Lee (Gainsborough); H. R. Maynard (Horncastle); W. H. Osborne (Caistor). (II) *Nil.* (III) *Nil.*

London.—(I) C. T. Allen (Kilburn); E. A. Atkins (Wandsworth); W. T. Bowell (Putney); J. Y. Fairweather (Bell Green); G. W. Hatfield (Limehouse); A. H. Jenkin (Tollington Park); J. Keall (Wandsworth); R. E. Lownsbrough (Maida Vale); J. Murison (Parke's Drug Stores, Camden Town); J. Noble (Islington); E. G. Price (Lewisham); J. A. Thompson (London Fields); G. A. Tocher (Crofton Park); W. B. Trick (Lewis & Burrows, Ltd., Stoke Newington). (II) M. Beresiarsky (Commercial Road, E.); J. A. Hayes (Chelsea). (III) *Nil.*

Middlesex.—(I) A. E. Bailey (Highgate); T. Bright (Willesden); H. E. Howell (Hampton Hill); C. Coulter (Wood Green); J. T. Davy (Upper Edmonton); W. Duncan (Tottenham); J. T. Humphrey (Cricklewood); W. H. Peake (Twickenham); H. Rigden (Harrow); A. Roberts (Acton); S. P. Sayers (Hendon); H. Skinner (Highgate); E. F. Strickland (Ealing); J. W. Webber (Chiswick); B. Webster (Muswell Hill); H. Wolff (Tottenham). (II) *Nil.* (III) *Nil.*

Norfolk.—(I) F. T. Alpe and G. C. Maynard (Wymondham); T. B. Brittan (Norwich); W. H. Cockle and W. Cox (King's Lynn); J. F. Collin (Watton); F. W. Cooper (Swaffham); S. L. Goceh (Holt); H. J. Heynoe (Fakenham); E. G. Inge (Mundesley-on-Sea); R. M. Ling (Cromer); J. M. Weller (Long Stratton). (II) *Nil.* (III) *Nil.*

Northamptonshire.—(I) A. E. C. Chambers, J. Gant, and R. H. Robinson (Wellingborough); H. Dean and J. R. Moore (Market Harborough); W. Hitchman and J. H. Thursfield (Kettering); C. Smith (Rushden). (II) *Nil.* (III) *Nil.*

Northumberland.—(I) T. M. Clague (Newcastle); G. Cormack and H. H. Denton (Blyth); G. Foggan (Bedlington); A. Andrews (Co-op. Soc., Walkend); D. Low (Hexham); L. Newbigin (Alnwick); G. R. Patterson (Ashington); H. Pattinson (Whitley Bay); J. Whittle (Morpeth); T. Wray (Lemington). (II) *Nil.* (III) *Nil.*

Nottinghamshire.—(I) A. H. Bell (Mansfield); G. W. Briggs and M. Radford (Sutton); C. C. H. Cauge (Bingham); G. W. Cherrington (Newark); W. A. Cooling (Eastwood); G. H. J. Cutlwick (Carlton); J. F. Dickenson and J. A. Pegg (Mansfield); A. R. Jesson (Mansfield Woodhouse); H. Knape (Boots, Ltd., Mansfield); E. S. Waring (Boots, Ltd., Nottingham). (II) *Nil.* (III) *Nil.*

Oxfordshire.—(I) O. J. Barley (Thame); T. J. A. R. Burbank, H. C. Goodall, and H. O. Oddy (Oxford); A. E. Fox and F. B. May (Banbury); R. G. Neave and W. T. Ransom (Witney). (II) *Nil.* (III) *Nil.*

Rutlandshire.—(I) C. Barnett and C. Bayley (Uppingham). (II) *Nil.* (III) *Nil.*

Shropshire.—(I) V. G. H. Barnes (Market Drayton); W. J. Brown (Ludlow); W. G. Cross, A. Day, J. B. Gouldbourn, and A. Williams (Shrewsbury); W. R. Dunn (Oakengates); T. R. Sparrow (Bridgnorth). (II) *Nil.* (III) *Nil.*

Soke of Peterborough.—(I) W. H. Alexander (Boots, Ltd.), T. J. Calcutt, W. S. Ennals, C. Hamson, H. E. Noble, J. E. Saunders, J. G. Sturton, and F. W. Whitwell (Peterborough). (II) *Nil.* (III) *Nil.*

Somersetshire.—(I) H. T. Chettle (Clevedon); C. Clutterbuck, J. Cooper, and S. G. Tydeman (Weston-super-Mare); W. Deacon (Bridgewater); G. W. Hodder (Frome); H. R. Hoyles (Wellington); F. E. Mason (Yeovil); F. Orchard (Highbridge); J. Rickett (Wells); J. F. Sanders (Crewkerne); S. B. White (Taunton). (II) *Nil.* (III) *Nil.*

Southampton (Co.).—(I) H. L. Allen (Aldershot); C. H. Baker (Cosham); S. G. Bartlett and A. E. Chaston (Winchester); C. S. Davies (Havant); G. H. Gare (Lymington); G. A. Harbin (Portsmouth); J. Horne (Eastleigh); A. H. Owen (Christchurch); E. H. Smith (Gosport); E. Thornhill (Basingstoke); F. B. Wride (Southampton). (II) *Nil.* (III) *Nil.*

Staffordshire.—(I) J. B. Blades (Leek); W. F. Fowke and H. Peacock (Stafford); T. W. Garland (Cannock); F. Jacks (Stone); D. Jackson (Wednesbury); E. M. Mellor (Uttoxeter); T. Perkin (Tamworth); W. Poole (Newcastle); A. S. Price (Blackheath, Birmingham); F. B. Sleigh (Willenhall); J. H. Whitehead (Walsall Wood). (II) *Nil.* (III) *Nil.*

Suffolk, East.—(I) F. G. Brice (Felixstowe); J. Brown (Lowestoft); A. Davidson (Ipswich); A. Gall (Woodbridge); G. J. Gostling (Stowmarket); S. L. Gray (Saxmundham); C. Hardy (Leiston); A. W. Rayner (Beccles). (II) *Nil.* (III) *Nil.*

Suffolk, West.—(I) F. A. Barrow (Newmarket); J. H. Brown (Sudbury); O. A. Clark, A. G. Gamble, A. H. Norman, and W. E. Youngman (Bury St. Edmunds); G. T. Phillips (Walsham-le-Willows); C. Stearn (Haverhill). (II) *Nil.* (III) *Nil.*

Surrey.—(I) F. S. Booth (Surbiton Hill); W. Bowden (Wimbledon); W. V. Burland (Guildford); J. B. Critchison (Wimbledon); W. J. Doe (Merton Park); W. H. Fowler

(Redhill); F. Harvey (Surbiton); A. Higgs (Kingston); E. T. Neatbercoat (Weybridge); A. J. Pratt (Reigate); F. Strawson (Dorking). (II) *Nil.* (III) *Nil.*

Sussex, East.—(I) C. S. Ashton (Brighton); R. B. Calderwood and J. C. Lloyd (Lewes); W. F. Crowtber (Mayfield); K. H. Emeleus (Battle); E. H. Farr (Uckfield); H. S. Martin (East Grinstead); E. Sisson (Bexhill). (II) *Nil.* (III) *Nil.*

Sussex, West.—(I) W. B. Allison (Arundel); W. Aston, W. T. Frost, and F. J. Martin (Worthing); S. Bastow (Chichester); E. Brooks (Crawley); N. R. Hilton (Bognor); A. G. Snook (Petworth). (II) *Nil.* (III) *Nil.*

Warwickshire.—(I) W. G. P. Bodley (Sutton Coldfield); C. Davis, H. Hutton, and W. L. Nundy (Leamington); J. T. Fleet (Rugby); C. E. Ison (Atherstone); H. Lester (Nuneaton); T. J. Rice (Knowle); J. Robinson (Coventry); F. D. Spencer (Stratford-on-Avon); H. Stubbins (Cornmarket); G. F. Winfield (Solihull). (II) *Nil.* (III) *Nil.*

Westmoreland.—(I) R. H. Barker (Windermere); T. Bell (Ambleside); G. N. M. Birkett, J. Irvine, R. C. Robinson, and G. Vogt (Kendal); G. D. Crozier (Kirkby Stepben); G. W. Tbexton (Kirkby Lonsdale). (II) *Nil.* (III) *Nil.*

Wiltshire.—(I) J. H. Aplin and W. F. Green (Trowbridge); R .T. Christopher (Bradford-on-Avon); W. Coucb (Chippenbam); F. J. Harrison, L. Ridebalgh, and J. Rowe (Salisbury); E. J. Hughes (Melksham); F. H. Jolly (Swindon); J. Oliver (Devizes); C. Paine (Westbury); J. J. Sbawyer (Swindon). (II) *Nil.* (III) *Nil.*

Worcester.—(I) W. Corbett (Bromsgrove); A. E. Coverdale and C. W. Turner (Worcester); A. W. Gedge (Malvern Link); J. Gibbs (Upton-on-Severn); S. Harris (Droitwicb); J. Need (Great Malvern); T. G. Rhodes and M. Smith (Kidderminster); W. R. Selleck (Stourbridge); A. W. Smith (Persbore); S. S. Taylor (Redditch). (II) *Nil.* (III) *Nil.*

Yorks, East Riding.—(I) J. A. C. Boyden (Pocklington); H. E. Brown (Hessle); P. Hawkins, J. V. Mainprize, and W. H. Wilson (Bridlington); C. Morrow (Hornsea); W. Parkinson (Driffield); J. Stanser (Beverley). (II) *Nil.* (III) *Nil.*

Yorks, North Riding.—(I) R. Agar (South Bank); R. C. Brown, E. M. Cbapman, W. R. Eyre, W. A. Senior, W. H. Turner, and G. Whitfield (Scarborough); H. Fairburn and G. F. Hird (Northallerton); C. C. Laverack (Malton); T. A. Ronchetti (Thornaby-on-Tees); W. Ruff (Whitby). (II) *Nil.* (III) *Nil.*

Yorks, West Riding.—(I) J. T. Appleton (Sheffield); A. R. Briggs (Horbury); J. B. Broadbent (Honley); R. Broadhead (Batley); E. C. Carr (Skipton); J. W. Clegg (Castleford); T. E. Handford (Harrogate); W. E. Metcalfe (Shipley); J. P. Norwood (Wath-on-Dearne); H. C. Roberts (Taylor's Drug Co., Ltd., Leeds); F. P. Sargeant (Leeds); W. E. Smithies (Elland); H. W. Stiles (Doncaster); J. W. Thorpe (Harrogate). (II) J. Parkinson (Oldham); C. D. Sellers (Sberburn-in-Elmet). (III) *Nil.*

County Borough Pharmaceutical Committees.

Barnsley.—(I) W. A. Bellamy, H. B. Billington, J. Moxon, E. Nash, W. Rigby, H. Teasdale (Co-op. Stores), J. F. Wood (Taylor's Drug Co., Ltd.), A. Wright. (II) *Nil.* (III) *Nil.*

Barrow-in-Furness.—(I) A. Bryden, J. G. J. Goddard, T. Melrose, C. Robertson, F. J. Sansom, S. Scott, W. B. Swann, S. Taylor. (II) *Nil.* (III) *Nil.*

Bath.—(I) H. W. T. Gedge, A. B. Hall, W. J. Hallett, J. G. H. Hawes, C. Jenkin, E. W. Loveless, Grace T. Rennie, J. W. Sampson. (II) *Nil.* (III) *Nil.*

Birkenhead.—(I) J. Cookson, A. Elder, F. D. Fawcett, A. J. Foxon, T. C. James, T. S. Jones, J. A. Stelfox, W. A. Wynne. (II) *Nil.* (III) *Nil.*

Birmingham—(I) J. W. Atkinson, F. Barlow, H. Critchlow, W. Izon, H. O. Lloyd, J. Poole, F. H. Prosser, W. Shakespear, F. Smith, W. H. Whittock. (II) B. C. Heath, C. T. Thonger. (III) *Nil.*

Blackburn.—(I) C. A. Critchley, R. L. Gifford, W. H. Grimshaw, J. W. W. Openshaw, C. M. Parkinson, J. E. Schofield. (II) T. Fairhurst, J. T. Slater. (III) *Nil.*

Blackpool.—(I) D. J. Bailey, F. Boothroyd, J. W. Greenwood, J. W. Huddart, J. Laurie, J. F. Roberts, J. Sankey, C. H. Turver. (II) *Nil.* (III) *Nil.*

Bolton.—(I) W. R. Blain, G. Brown, E. N. Fox, H. Knott, J. R. Massey, C. Naylor, W. Rotbwell, H. P. White. (II) *Nil.* (III) *Nil.*

Bootle.—The nomination papers were not received by returning officer, and tbe election will be held at a later date.

Bournemouth.—(I) J. H. Barnes, W. A. Bingham, F. E. Bilson, F. B. Goddard, T. Hirst, A. E. Lodder, J. H. Scampton, A. J. Worth. (II) *Nil.* (III) *Nil.*

Bradford.—(I) F. W. Appleyard, A. Atkinson, A. Bainton, F. E. Burdett, J. Culvert, A. Faull, M. Firth, A. R. Junor, G. Penty, C. Robinson, R. T. Silson, W. Sutcliffe. (II) *Nil.* (III) *Nil.*

Brighton.—(I) C. S. Ashton, A. J. Franklin, J. R. Gwatkin, E. A. Jones, R. R. E. Perkins (Boots, Ltd.), J. Plowright, C. G. Yates. (II) *Nil.* (III) H. Farmer.

Bristol.—(I) A. E. Burnett, E. Carpenter, J. Chandler, A. J. Colley, A. L. S. Cosh, T. Grant, F. Moss, W. J. Nethercott, W. Pitchford, W. T. Pitchford, C. H. Price. (II) A. L. Smith. (III) *Nil.*

Burnley.—(I) C. Barker, J. A. Barlow, J. Brown, J. A. Heaton, F. P. Pick, L. Tomlinson, M. W. Tomlinson. (II) *Nil.* (III) *Nil.*

Burton-on-Trent.—(I) M. H. Gibson, W. R. Hues, W. Lean, J. T. Morris, A. B. Norris, W. H. Oswell, A. G. Pye, H. Staley. (II) *Nil.* (III) *Nil.*

Bury.—(I) A. W. Charnley, J. C. Croasdale, W. Crompton, C. Dean, S. Heywood, N. Hulme, D. Williamson (Boots, Ltd.). (II) *Nil.* (III) C. Crompton.

Canterbury.—(I) C. Bing, R. Croft, G. W. Harris, G. T. Hobbis, A. Lander, B. F. H. Maudson. (II) *Nil.* (III) *Nil.*

Chester.—(I) T. Carter, J. P. Craine, D. Dickinson, J. H. Hopley, G. H. Moss, R. C. Owen, W. Roberts, T. Woolman. (II) *Nil.* (III) *Nil.*

Coventry.—(I) W. A. Bales, S. H. Bird, E. Hoyle, A. H. Newton, J. Robinson, C. H. Welton, G. R. Williamson, W. M. Wilson. (II) *Nil.* (III) *Nil.*

Croydon.—(I) J. L. Barnes, F. A. Boye, W. H. Cole, C. Dickinson, R. L. Griffiths, H. C. Neve, L. W. Stanton. (II) *Nil.* (III) *Nil.*

Derby.—(I) J. A. Cope, E. Crossley (Boots, Ltd.), W. Elmitt, A. Haynes, H. G. Pattison, W. Riley, H. G. Toy, C. D. Turner. (II) *Nil.* (III) *Nil.*

Devonport.—(I) A. J. Ancliffe, W. Barrett, F. W. Broom, H. D. Davey, J. E. Knigbt, J. A. Lamble, W. M. Martin, S. A. Perkins. (II) *Nil.* (III) *Nil.*

Dewsbury.—(I) J. Day, R. J. H. Day, J. S. Flower, R. Gledhill, G. W. Gutteridge, G. Hengham, F. W. Hollingworth, S. Ward. (II) *Nil.* (III) *Nil.*

Dudley.—(I) J. W. Cox, H. E. Doo, J. E. Doo, J. H. Poynton, P. G. Richardson, E. Smith. (II) *Nil.* (III) *Nil.*

Eastbourne.—(I) F. W. Bridger, H. C. Browne, G. A. Harmer, D. Marchant, A. Mills, W. E. Pilgrim (Boots, Ltd.), W. Price, J. O. Routly. (II) *Nil.* (III) *Nil.*

Exeter.—(I) P. A. B. Beale, J. Harris, F. S. Joint, J. H. Lake, E. Lemmon, T. C. Milton, P. F. Rowsell, F. W. Vinden. (II) *Nil.* (III) *Nil.*

Gateshead.—(I) C. E. Akcroyd, H. S. Davison, W. W. Gale, R. Glendinning, J. Manners, H. N Popbam, R. Spink, A. D. Wyllie. (II) *Nil.* (III) *Nil.*

Gloucester.—(I) H. R. Broad, W. H. Hampton, R. B. Hill, W. Marchant, W. Minchin, W. T. Slatter, W. Walwin, A. J. Wells. (II) *Nil.* (III) *Nil.*

Great Yarmouth.—(I) H. E. Goddard, P. R. Hill, H. Palmer, T. T. Richards, A. E. Richmond, J. S. Shearman, F. E. Wbitfield, T. J. Woodcock. (II) *Nil.* (III) *Nil.*

Grimsby.—(I) C. H. Asbton, H. W. Colley, J. A. J. Hawdon, R. C. Johnson, G. T. Mitchell, J. A. Moore, S. F. Richardson (Boots, Ltd.). (II) R. Kitchen. (III) *Nil.*

Halifax.—(I) G. Q. Dixon, W. R. Fielding, E. U. Foster, (Boots, Ltd.), J. Patchett, P. W. Swire, A. Taylor, J. W. Tiffany, H. K. Woodward. (II) *Nil.* (III) *Nil.*

Hastings.—(I) A. E. Bolshaw, H. C. Edwards, E. W. Geary, F. W. Goodman, J. B. Munton, F. Tree, H. P. White, J. Williams. (II) *Nil.* (III) *Nil.*

Huddersfield.—(I) J. H. Cooper, S. D. Pickering, J. F. Russell, V. Shaw, H. E. Spurr, S. Stephens, R. C. Walshaw, J. B. Wood. (II) *Nil.* (III) *Nil.*

Ipswich.—(I) H. Chard, C. Collins, J. R. Cornell, J. T. Jackson, W H. Stones, J. A. Symonds, J. C. Wiggin. (II) *Nil.* (III) *Nil*

Kingston-upon-Hull.—(I) E. H. Earle, G E. Hoyles, A. F. Jones, A. Richardson, T. W. Robinson, J. F. Robson, L. S. Selle, T. Smith, J. J. Spilman, W. Staning, A. J. Wharton, J. H. Whitelam. (II) *Nil.* (III) *Nil.*

Leeds.—(I) N. N. Armitage, J. H. Beacock, J. R. Bentley, E. Brownbill, H. Gilleghan, M. E. Murray, G W. Overend, H. C. Roberts (Taylor's Drug Co., Ltd.), F. P. Sargeant, R. G. Sbaw. (II) W. H. Hutton, A. F. Kirkman. (III) *Nil.*

Leicester.—(I) C. J. Avery, A. D. Hearnshaw, W. T. Hind, G. E. Marfitt, E. Tomlin (Boots, Ltd.), E. B. Ward, F. T. Wilby, A. E. Young. (II) *Nil.* (III) *Nil.*

Lincoln.—(I) J. C. M. Battle, A. S. Birkbeck, E. R. Dixon, G. Elmitt, J. Hague, W. E. Hill, D. S. Wark, F. P. Watson. (II) *Nil.* (III) *Nil.*

Liverpool.—(I) J. Bain, A. S. Barr, W. H. Clubb, D. H. Evans, J. L. Hirst, M. S. Hughes, C. E. Jones, G. V. C. Lest, R. E Lloyd, L. M. Parry, C. Symes, G. R. Tbarratt. (II) *Nil.* (III) *Nil.*

Manchester.—(I) F. W. Bates, J. Beal, J. Bell, J. Cleworth, T. H. Coates, W. H. Delve, H. Kemp, J. C. Kidd, G. A. Mallinson, J. H. Nidd. (II) A. O. Balshaw, W. Capper. (III) *Nil.*

Middlesbrough.—(I) W. R. Brackenbury, C. S. Ellington, A. W. Harrison, A. Lee, E. R. Nicholls, E. D.-Owen, H. H. Spencer, J. C. Thompson. (II) *Nil.* (III) *Nil.*

Newcastle-on-Tyne.—(I) S. W. Bowness, T. M. Clague, J. W. Crake, J. Elliott, T. H. Flemming, W. R. Gray, A. D. Hunter, R. McClumpha, C. T. Russell, W. Stephenson. (II) *Nil.* (III) *Nil.*

Northampton.—(I) F. C. Ashford, E. E. G. Dennis, J. F. Harris, L. North, H. Rolfe, E. Y. Stuckey, R. F. Wright. (II) J. L. S. Hall. (III) *Nil.*

Norwich.—(I) A. E. Beeston, J. F. Collin, J. H. Denny, W. H. Hurn, A. E. King, W. J. Lacey, P. Robinson, R M. Tozer. (II) *Nil.* (III) *Nil.*

Nottingham.—(I) C. F. Carr, A. Eberlin, W. Gill, W. Meakin, A. Middleton, F. R. Sergeant, J. Stanley, E. S. Waring (Boots, Ltd.), T. Wilson. (II) A. D. Hutchinson, C. Manfull. (III) A. Milne (Boots, Ltd.).

Oldham.—(I) H. Bagshaw, F. Davies, C. Gartside, W. Gartside, F. Newby, H. Whittle. (II) T. Halliday, J. Parkinson. (III) *Nil.*

Oxford.—(I) C. Bellamy, T. J. A. R. Burbank, C. Clayton, H. C. Goodall, H. C. Gunstone, H. O. Oddy, G. B. Rose, H. H. Swift. (II) *Nil.* (III) *Nil.*

Plymouth.—(I) J. F. Barge, F. Goodwin, C. J. Park, R. F. Roper, B. T. R. Shelton, F. A. Spear, J. D. Turney, W. C. U'Ren. (II) *Nil.* (III) *Nil.*

Portsmouth.—(I) W. R. Atterbury, T. O. Barlow, W. A. Bell, J. W. Rhodes, A. B. Sparrow, T. A. White (Southsea); T. Brewis (Fratton); G. A. Harbin (Portsmouth).

Preston.—(I) J. F. Burnett, H. G. Crompton, H. S. Freeman, S. H. Hadfield, J. J. Hobson, W. F. Livesey, F. A. Williamson. (II) H. Bunting. (III) *Nil.*

Reading.—(I) B. H. Butler, J. Cooper, C. Craft, W. J. Findlay, H. G. Rix, P. Tavendale, F. W. Vasey, R. Wood. (II) *Nil.* (III) *Nil.*

Rochdale.—(I) W. J. Crook, G. S. Dean, L. Etherington, H. Holt, J. Kershaw, R. Lawrence, W. Nall, E. Thomas. (II) *Nil.* (III) *Nil.*

Rotherham.—(I) S. P. Billington, F. Bingham, H. A. Buxton, P. Davy, A. E. Thomas, J. H. W. R. Turner, F. A. Westbrook, J. F. Wilkinson. (II) *Nil.* (III) *Nil.*

St. Helens.—(I) J. C. Cotton, J. Gauld, J. Glover, W. Kesterton, R. S. McDonald, T. S. Welch. (II) W. J. Carr, A. Goodall. (III) *Nil.*

Salford.—(I) T. H. Coates, W. F. Cuttiford, J. L. Davison, J. W. Gill, D. Lewis, E. H. Simmons, H. Thompson. (II) R. A. Davies. (III) *Nil.*

Sheffield.—(I) J. T. Appleton, H. Antcliffe, W. Beulah, A. H. Culverhouse, J. F. Eardley, E. Haining, C. H. Hewitt, J. G. Jackson, J. M. T. Reynolds, H. G. Williams. (II) W. F. Shirtliffe, E. Waterhouse. (III) *Nil.*

Smethwick.—(I) W. Beck (Birmingham), J. B. Blakemore, H. Burton, J. H. Cullwick, G. Hampton, H. Oakley, H. M. Tranmer, and E. B. Whitehouse (Smethwick). (II) *Nil.* (III) *Nil.*

Southampton.—(I) W. Bates, W. A. Clark, H. Ferryman, G. E. Gibson, H. Jewell, W. R. Jones, W. Martin, F. B. Wride.

Southport.—(I) H. Barton, F. Battersby, G. Crook, C. Hare, J. Joyce, J. Righton, F. H. Wall, W. B. Woods. (II) *Nil.* (III) *Nil.*

South Shields.—(I) J. M. Darling, T. W. Edwards, R. Hardy, T. M. Liddle, E. Michaelson, J. P. Riddle, J. Walker, B. Williamson. (II) *Nil.* (III) *Nil.*

Stockport.—(I) G. Bennett, A. Crossley, R. T. Forbes, F. Inglis, A. E. Mills, and D. Piach (Stockport); F. H. Bowden (Cheadle). (II) *Nil.* (III) J. Core (Stockport).

Stoke-on-Trent.—(I) T. C. Cornwell and E. Jones (Hanley); J. A. Dale (Stoke); H. W. Kemp (Fenton); L. W. Piggin (Tunstall); W. Poole (Newcastle); R. Prince (Longton); A. P. Tiley (Burslem). (II) *Nil.* (III) *Nil.*

Sunderland.—(I) R. Anderson, R. H. Bell, E. R. Cherrett, T. D. Dalton, A. J. Kerrison, W. Nimmo. (II) S. H. Potts and J. J. Witton. (III) *Nil.*

Tynemouth.—(I) W. W. Bell (Tynemouth), W. Buckley, J. Gibson, J. F. Hogg, T. S. Stonier, A. Wait, H. S. Williamson (N. Shields). (II) T. S. Irwin (N. Shields). (III) *Nil.*

Wallasey.—(I) R. G. Govier and E. S. Taylor (Egremont), H. S. Pierson (New Brighton), W. A. Somerville (Upper Brighton), C. H. Sturt (Seacombe), J. G. Thompson (Boots, Ltd., Egremont), S. H. Tottle and E. G. Welton (Liscard). (II) *Nil.* (III) *Nil.*

Warrington.—(I) H. M. Maitland, J. Bamforth, S. R. G. Bertles, J. H. Crofts, O. Harris, J. S. Hill, H. Smith, J. R. Young. (II) *Nil.* (III) *Nil.*

West Bromwich.—(I) J. R. Allen, H. S. Barnes, E. Beattie, C. W. K. Bourne, H. Edgson, J. Lock, H. Osborne. (II) *Nil.* (III) F. R. Evans

West Ham.—(I) D. W. A. Desmond, J. E. Evans, W. T. Johnson, C. A. Jones, J. Kirkpatrick, W. Mercer (Trick's Drug Stores), E. Miller, H. Mitchell, W. Potter, H. Soper. (II) T. H. Offord. (III) R. S. Newman.

West Hartlepool.—(I) J. B. Barker, T. Clarkson, D. G. Cordiner, P. H. Gamlen, R. Leithead, J. G. Robinson, A. Timmins, G. R. Troupe. (II) *Nil.* (III) *Nil.*

Wigan.—(I) W. Aspinall, R. H. Dawson, O. Hunter, C. Mould, J. Pennington, H. S. Phillips, T. H. Winstanley, J. P. Worthington. (II) *Nil.* (III) *Nil.*

Wolverhampton.—(I) J. H. Coleman, F. J. Gibson, E. E. Hall, D. Henderson (Martyns, Ltd.), S. Phillips, S. G. C. Schofield (Boots, Ltd.), M. R. Warner, F. A. Willcock. (II) *Nil.* (III) *Nil.*

Worcester.—(I) H. J. Aubrey, F. Bates, A. E. Coverdale, F. H. Horniblow, T. Lunn, D. G. Pout, C. A. Steward, C. W. Turner. (II) *Nil.* (III) *Nil.*

York.—(I) T. C. Atkinson, T. E. Batty, F. C. Hey, J. A. Lupton, F. A. Newey, J. R. Parker, W. P. Saville, J. W. Torr. (II) *Nil.* (III) *Nil.*

Notes.

IN GLASGOW 1,500 insured persons have not chosen a doctor. The Insurance Committee has decided to distribute them equally among panel practitioners whose lists do not and will not exceed 1,500

IN FORFARSHIRE close on 3,000 people have not chosen panel doctors. The practitioners of the county have been paid 100 per cent. for all insured persons except these, and 1,075*l.* in mileage grants.

MR. WALTER S. MARCHANT, 36 High Town, Hereford, has written to the "Hereford Times" stating that he, as well as Messrs. Chave & Jackson, is not continuing on the Herefordshire dispensing panel. He says: "The remuneration offered by the Commissioners is so insultingly small, it does not pay to occupy the necessary amount of time to dispense the medicines in a proper and accurate manner."

THE NATIONAL HEALTH JOINT COMMISSION have made draft regulations relating to the provision of Medical and Sanatorium Benefits for "exempt" persons under Section 4 (4) of the National Insurance Act, 1911, as amended by Section 9 of the National Insurance Act, 1913, and the revised Medical Benefit Regulations. This provides for the continuation of Medical and Sanatorium Benefits of deposit contributors from January 14 to April 11, 1914, a period during which they might otherwise be deprived of benefits to which they are entitled owing to particulars of the amount to their credit in the Deposit Contributors' Fund not being available.

THE new medical cards issued by Insurance Committees (*C. & D.*, 1913, II., 921), which must be possessed by insured persons before they can obtain Medical Benefit after January 12, are now ready. The specimen in our possession is a buff-coloured card, 6¾ by 4¾ in., folding down the middle. Insured persons who have already chosen their doctors or institutions will receive cards in due course, but those who have not yet done so should obtain Form Med. 50 from any post-office, and apply thereon for a medical card to the Clerk of the Insurance Committee for their particular county or county borough. Chemists should remind such of their employés as are insured persons of the necessity of having a medical card in case they should require medical attention.

An Insurance Committee's Year.

The first annual report of the Surrey Insurance Committee, covering a period from July 15, 1912, to July 15, 1913, is of considerable interest in showing how the inaugural difficulties in working the Insurance Act have been overcome. The appointment of permanent staff and temporary assistants reflects the progress of events. One clerk was sufficient up to October 1912, when the appointment of chief clerk was advertised, 246 applications being received. A temporary lady assistant was next appointed to deal with the increasing numbers of index slips, and the Clerk (Mr. W. Bell) entered upon his duties on December 16, 1912. An accountancy clerk was appointed early in January 1913, in anticipation of the commencement of medical benefit. The most strenuous period for the Committee and its staff coincided with the commencement of medical benefit, the preparation of the medical register being described as "a work of great magnitude," and as necessitating the employment of up to thirty-seven temporary girl clerks. On July 14, 1913, there had been

little diminution in the temporary staff, and the Committee was paying its permanent staff at the rate of 1,088*l.* per annum.

Under Medical Benefit a short account is given of the protracted negotiations with the medical men, a workable panel being only formed at a conference on January 6, after medical practitioners had been informed of the alternative methods for meeting the deficiency of doctors on the panel. By January 2, 96 per cent. of the chemists in the county had accepted service, the number on the panel on January 15 being 136, and on July 15, 174. The Medical Benefit Sub-Committee was formed on October 16, and at its first meeting in November two further sub-committees, Medical and Pharmaceutical, were appointed. The former met once and the latter twice, but "in view of the difficulty of the meetings of these Sub-Committees being held in time for the Sub-Committees to report to the Medical Benefit Sub-Committee, which must in turn report to the Committee," it was thought more convenient for the full Sub-Committee to discuss all matters affecting medical benefit, and the two Sub-Committees were not reappointed when the new Insurance Committee was established. The payments to doctors and chemists have been made monthly. The latter received 75 per cent. of their accounts as rendered in the first instance and the remainder as checked by the Pharmaceutical Standing Committee, with the first cheques sent out after the results were received. The number of insured persons was 182,871 on October 29, 1912, 187,772 on April 14, 1913, and 196,267 on July 14, 1913. The Committee at the period under review was also in possession of 20,000 suspense slips (for persons accepted by panel practitioners but in respect of whom the Committee does not hold index slips, so that they cannot be included in the count).

The Committee has decided only to consider such applications from persons who are constantly moving or residing at a considerable distance from a panel doctor, servants and others desiring family doctor, continuation of present medical treatment, insured members of staffs of institutions, persons requiring special treatment, or desiring lady doctor. The Committee has fixed a scale of medical fees chargeable to persons making their own arrangements. Under Sanatorium Benefit the provision of cod-liver oil plain and with creosote, malt-extract, cod-liver oil and malt-extract, has been sanctioned as part of domiciliary treatment. Appended is a list of attendances of members of the Committee, and it is interesting to note only one other member besides the pharmacist representative (Mr. E. T. Neathercoat) attended all the nine meetings of the Medical Benefit Sub-Committee. Particulars of claims on Sickness Benefit and Maternity Benefit are also given as appendices, but figures relating to prescriptions are absent, apparently waiting for the balancing of accounts. Payments to general practitioners (416) were 11,749*l.* during the past quarter and 14,186*l.* during the second quarter, with 386*l.* 19*s.* 3*d.* and 456*l.* 7*s.* 1*d.* additional to the respective quarters' amounts for dispensing in rural areas. Chemists' accounts as checked for the first quarter amounted to 2,472*l.* 7*s.* 1*d.*, but apparently the figures for the second quarter were not available in time for the report. A note adds that no payment has yet been made from the Suspense Fund, and it would appear that the Drug Fund (estimated at 15,725*l.*) will not be fully drawn upon. The Committee, after conference with pharmacists' and doctors' representatives, has decided that "expensive drugs, proprietary articles, and patent medicines should not be ordered by practitioners on the panel, and that vaccines and sera should not be supplied at the expense of the Drug Fund unless urgently needed." The number of insured persons obtaining Medical Benefit through approved institutions is 389. In 601 cases the insured persons have been allowed to make their "own arrangements" The accounts are to be completed for the eighteen months ending January 11, 1914. The Insurance Commission is represented at the meetings of the Committee and the Medical Benefit Sub-Committee by the Insurance Inspector for the County Mr. F. G. Macereth.

REVIEWS.

A Text-book of Quantitative Chemical Analysis. By ALEXANDER CHARLES CUMMING, D.Sc., and SYDNEY ALEXANDER KAY, D.Sc. 9 in. by 6 in. Pp. xii + 382. 7*s.* 6*d.* net. (London: Gurney & Jackson. 1913.)

THE impression produced by an examination of this book is wholly favourable, and we congratulate Drs. Cumming and Kay upon having produced a students' text-book which forms the best introduction to quantitative analysis that we have yet seen. The book consists of ten parts, which deal successively with General Principles; Volumetric Analysis, Gravimetric Analysis; Colorimetric Methods; Systematic Quantitative Analysis; The Analysis of Simple Ores and Alloys; Gas Analysis; Water Analysis; Quantitative Analysis of Organic Substances; and The Determination of Molecular Weights; and there is an Appendix containing useful tables of various kinds. The treatment of each part is simple, lucid, and adequate; the illustrative exercises are numerous and so chosen as to introduce the student to a wide range of applications of the analytical methods described; and the illustrations are unusually clear. The authors have probably been guided by their extensive teaching experience in treating of Volumetric before proceeding to Gravimetric Determinations, since it is undoubted that beginners as a rule find the former more interesting than the latter. It is a matter of considerable difficulty to arouse the interest of some students in quantitative analysis of any kind, but if that interest can be stimulated at all, we fancy the end may be more easily attained with the aid of this book, in the hands of a competent teacher, than by any other method. On the other hand, the eager student who likes quantitative work—a species by no means non-existent—might with comparatively modest facilities rapidly travel a long way in the direction of making himself a reliable analyst with no other guide than the book before us. While the matter of the book is excellent, the printing and get-up leave nothing to be desired.

Practical Notes and Formulae.

Solubility of Salicylic Acid in Oils.

THE "Répertoire de Pharmacie" gives the following solubilities of salicylic acid in oils, the amounts indicated in grams being the quantity soluble in 100 grams of the oil:

Almond oil	2.08	Nut oil	1 83
Castor oil	12 98	Olive oil	2 14
Cod-liver oil	1 86	Poppy oil	2.22
Cotton-seed oil	3.27	Sesame oil	2.61
Linseed oil	3.04	Walnut oil	3.15

Belgian Fire

UNDER the name of "Feu belge" a vesicant preparation for veterinary practice is much used on the Continent. The preparation was official in the Belgian Pharmacopœia 1885, and consisted of powdered euphorbium and cantharides in a medium of cod-liver oil. It was prepared of two strengths—simple and double. The cod-liver oil was replaced in the 1906 edition by medicinal oil, allowing of the use of various vegetable fixed oils. Mr. O. Navez ("Annales de Médecine Vétérinaire") now proposes a formula which was used by his father for more than thirty years and has produced satisfactory results at all times. The recipe is as follows:

Paraffin burning oil	1 litre
Powdered euphorbium	15 grams
Powdered cantharides	60 grams

Macerate for three weeks in a closed vessel, shaking from time to time, then filter.

It is used with friction, with a second application after forty-eight hours if necessary. It should only be used for solipedes and the larger ruminants. The author claims that this preparation leaves no blemish after blistering. The disagreeable odour is an advantage as it keeps off flies.

TRADE REPORT.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

42 Cannon Street, London, E.C., January 1.

BUSINESS has been reduced to very small proportions since our last, owing to the holidays and stocktaking operations. Prices, however, are well sustained all round, and in several instances advances are recorded. Atropine is 2*s*. 9*d*. dearer owing to extreme scarcity of good belladonna-root. Quinine is firmer from second-hands, with few sellers. Santonin is 2*s*. 3*d*. dearer, as anticipated. Opium remains firm, as are the alkaloids. A large business has been done to arrive in menthol and mint oil combined at easier prices. Citric acid is the turn cheaper; milk-sugar firm. Belgian castor oil is 5*s*. dearer. Good canary-seed is scarce and higher, but common descriptions are lower; anise is firm, caraway and linseed steady. Among essential oils, star anise is unaltered, and cassia easier to arrive; lemon and bergamot are easy, but orange is firmer; American peppermint is steady. In "outside" articles, turpentine and shellac are dearer. Ammonia sulphate is on the weaker side. The principal movements have been as under:

Higher	Firmer	Easier	Lower
Atropine Benzoic acid Canary-seed (good) Castor oil (Belgian Santonin Turpentine Valerian-root	Quinine (seconds) Shellac	Ammonia sulphate Cassia oil (c.i.f.) Citric acid Orange oil Palm oil	Canary seed (common)

Cablegram.

NEW YORK, December 31.—Business in drugs is dull. Opium is firm at $6.00 per lb. for druggists' by case lots. Peppermint oil in tins is quiet at $3.50 per lb. Cartagena ipecacuanha is lower at $1.65. Quinine is firm at 26c. per oz. Podophyllum-root (mandrake) is steady at 9½c., and euonymus-bark is firm at 45c. per lb.

London Markets.

ALOES.—Curaçao in cases is quoted at 42*s*. 6*d*. c.i.f. taken tale quale. The s.s. *Edinburgh Castle* has brought 43 packages Cape from Mossel Bay.

AMMONIA SULPHATE is quiet with nominal quotations practically as last mentioned. In view of the disturbed condition of the German market and the increased quantities of sulphate which are being produced by home manufacturers, it is difficult to predict the forward position. At present the prices are fairly steady, but sellers are not so firm in their demands for a premium on forward business. Present prices are: London terms prompt, grey 25 per cent., 12*l*. to 12*l*. 2*s*. 6*d*. per ton; Leith, 12*l*. 18*s*. 9*d*. to 13*l*.; Hull, 12*l*. 16*s*. 3*d*.; and Liverpool, 12*l*. 17*s*. 6*d*. per ton.

ANISEED is firm at 26*s*. to 28*s*. per cwt. for ordinary to good Russian, and 35*s*. for Spanish. To arrive Russian is firm at 27*s*. c.i.f.

ANISE OIL, STAR.—The spot price of "Red Ship" brand is 6*s*. 4*d*., and to arrive 5*s*. 5*d*. c.i.f. is quoted.

ATROPINE.—The makers have advanced the price of atropine and salts by 2*s*. 9*d*. per oz., the quotation for sulphate being from 16*s*. to 16*s*. 9*d*. per oz. according to quantity.

BALSAM TOLU is offered at 2*s*. 3*d*. per lb. c.i.f., and on the spot 2*s*. 8*d*. has been paid for good.

BELLADONNA-ROOT is offered at 44*s*. ex wharf for .053 per cent. *Leaves* are very scarce, with genuine offered at 72*s*. 6*d*.

BENZOIC ACID ex gum benzoin is dearer at from 6*d*. to 6¼*d*. per oz., according to quantity, for Howard's make.

BENZOIN.—The *Neleus* has brought 25 cases from Singapore and 15 cases from Penang.

BERGAMOT OIL.—We understand that the pressings are proceeding regularly, and that prices in primary markets are being shaded for what business has been done, the market being easy. The number of forward contracts so far placed has been very limited owing to the peculiar conditions of the market. A Catania report, dated December 22, states that the pressing of the new oil has commenced. It is reported that owing to a slight snowfall about two weeks ago the yield of oil is slightly less than hoped for. A stock of about 10,000 kilos., held by Calabrian producers, has been carried into the new season. Export demand has been limited and the market declined a little, remaining quiet. A further decline seems unlikely, as producers will probably try to oppose it.

CAMPHOR (REFINED).—The sales include 25 cases Japanese 2½-lb. slabs at 1*s*. 4 5/16*d*. per lb. c.i.f. for May-June shipment.

The exports of crude and refined from Japan for the ten months ended October (from official figures just published) were as follows:

	1911	1912	1913
Kin	2,800,037	2,420,650	2,037,815
Yen	2,543,167	2,233,710	1,842,637

The *camphor-oil* exports during the same period were:

	1911	1912	1913
Kin	1,534,218	1,037,713	1,442,284
Yen	326,777	222,432	323,847

CANARY-SEED.—Good qualities are scarce and dearer, but common kinds are lower. Bold Spanish has been sold at 120*s*. to 125*s*. per quarter, and bold Morocco at 97*s*. 6*d*. to 100*s*., while common Morocco has changed hands at 81*s*. 6*d*. Turkish for shipment is quoted nominally 82*s*. 6*d*. c.i.f. terms.

CARAWAY-SEED is steady at 26*s*. to 28*s*. per cwt. for common to good Dutch.

CASSIA OIL is offered at the easier rates of from 2*s*. 6*d*. to 2*s*. 10*d*. per lb. c.i.f., according to cinnamic-aldehyde content.

CASTOR OIL.—English make of first pressing for prompt delivery is quoted at 26*l*. 15*s*., and all positions for 1914 27*l*. per ton, usual terms, delivered free on wharf London. Pharmaceutical quality is 50*s*. per ton over the price of firsts, and oil in tins and cases 50*s*. over the price in barrels. Belgian of first pressing for prompt and forward is 5*s*. firmer at 26*l*. 15*s*. per ton f.o.b. Antwerp. Good seconds Calcutta is quoted in Liverpool at 4½*d*. per lb. for spot parcels and 3½*d*. for shipment.

CINCHONA.—At the auction to be held at Amsterdam on January 22, 1,969 packages pharmaceutical bark, weighing about 136,389 kilos., will be offered.

CITRIC ACID is the turn easier at from 2*s*. 0¼*d*. to 2*s*. 0½*d*. per lb.

CLOVES.—Steady with a fair business; the spot value of Zanzibar of new import is 5¾*d*. for fair, and old crop 6¼*d*.; *to arrive*, the sales include March-May at 5 13/16*d*. c.i.f., and for June-August *delivery* sales have been made at 5 15/16*d*. to 6*d*.

COCA-LEAVES.—At the auction to be held at Amsterdam on January 22, 1,742 packages, weighing about 93,267 kilos., will be offered.

CODEINE.—When considered in respect to the position of opium, present prices are regarded as "quite moderate"; for small lots of crystals and precip. 12*s*. 3*d*. net is quoted.

COD-LIVER OIL.—Our Bergen correspondent writes on December 29 that the nominal quotation for prime non-

congealing Lofoten oil is 85*s.* 6*d.* per barrel c.i.f. terms, with few and small sales only.

COPAIBA is quoted at from 2*s.* to 2*s.* 2*d.* per lb. on spot according to holder. The *Hilary* from Para has brought 32 cases to Liverpool.

CORIANDER-SEED is very slow of sale, but quotations are unchanged at 15*s.* to 17*s.* per cwt. for wormy Morocco, and 19*s.* 6*d.* for sound. Russian is scarce at 19*s.* c.i.f.

CUMIN-SEED.—A fair quantity of wormy Morocco has been sold at 21*s.* to 24*s.* per cwt. for common to fair, and a few small lots of sound at 27*s.* to 28*s.* 6*d.* Malta is quoted at 29*s.* c.i.f. terms for shipment.

ERGOT.—Fair arrivals of both Russian and Spanish have taken place; the former is offered at 2*s.* 1*d.* c.i.f.

FENNEL-SEED has been sold at 20*s.* per cwt. for East Indian in small quantities.

FENUGREEK-SEED.—Some sales of Morocco have been made at 10*s.* 3*d.* per cwt. c.i.f. terms for shipment. Retailers are asking 11*s.* 9*d.* on the spot.

LEMON OIL.—Judging by advices received from Sicily the position by no means appears to be strong, and now that the month of December is over, prices for January in some instances are a trifle easier at between 9*s.* 6*d.* and 9*s.* 10*d.* per lb. c.i.f. New crop oil now landing is offered at 10*s.* per lb.

A Sicilian advice dated December 20 reports that in the early part of the week a gradual slackening off was noticeable, as the demand from abroad continued to be entirely lacking and local buyers took little interest. Sellers consequently began to be more manageable, but a few local operations and the general belief among holders that local requirements against forward contracts for December delivery may give them occasion to "squeeze" buyers lent a stronger tone during the last few days. On the whole, general inactivity is the most marked feature, as both buyers and sellers are looking on. Meanwhile deliveries against forward contracts are progressing quite regularly, and the pressing is also becoming more active in the various districts. —A further Sicilian advice dated December 27 states that local requirements to fulfil previous forward contracts for December delivery influenced the market during the course of this week, giving an opportunity to sellers to maintain their prices and to obtain slight advance from needy buyers. In fact, the quantities offered for sale have been, on the whole, rather scanty; on the other hand, people who had sold in blank at prices much above the present level are not very particular about paying a little more in order to cover. All this has made the position most unsatisfactory for genuine new transactions, which, however, have been very limited.

A Catania report dated December 22 states that the gathering of the lemons should have begun in November, but was delayed two to three weeks on account of the continued drought during that month. About a fortnight ago the looked-for rains set in, and now all the factories have opened. The yield as well as the quality is good. Owing to the increased offerings, prices for prompt declined, but there is now a good demand for December shipment, principally from America, which has checked the sagging tendency. The market is now steady for both prompt and future delivery. Some export demand is apparent for small quantities for near shipment, but exporters remain indifferent, hoping for lower prices with the larger supplies which will commence next month.

LINSEED is steady at 52*s.* 6*d.* per quarter for good bold and clean qualities.

MENTHOL has shown more activity, the sales including 200 cases Suzuki for January-March shipment to the Continent in combination with oil at 11*s.* 10½*d.* per lb. c.i.f.; also November-December shipment of Kobayashi-Suzuki at 9*s.* and January-March at 8*s.* 9*d.* c.i.f.; on the spot, business has been done at 10*s.*

MILK-SUGAR is firm at 58*s.* 6*d.* per cwt. on spot.

MORPHINE remains firm. The January list price of makers for small wholesale quantities of hydrochloride powder is now 3*d.* higher at 8*s.* 3*d.* and crystals 8*s.* 5*d.*

OPIUM.—This market has been practically closed since our last, but very firm prices have been cabled from Smyrna, the usual 11 per cent. quality offering at 14*s.* per lb. c.i.f. terms. The *Bavarian* has brought 114 cases from Smyrna to Liverpool, probably in transit for U.S.A.

A Smyrna correspondent writes on December 19, reporting a very active market in consequence of the decline which took place last week, but after 113 cases had changed hands prices stiffened again, and to-day the position is firm at 13*s.* 6*d.* to 16*s.* for the usual druggists' qualities, 10½ per cent. to 12 per cent. The market price for 11-per-cent. uniform quality to-day is 14*s.* 3*d.*, but for mixed parcels at 13*s.* 6*d.* to 13*s.* 9*d.* shippers are inclined to close contracts, although this is accompanied by much risk. Very cold weather has set in, owing to which farmers cannot make progress with their sowings, and everything tends to show that we shall have a very reduced crop of opium next year. The arrivals in Smyrna are 4,122 cases, against 2,123 cases at same date last year.

A Constantinople correspondent writes on December 20 that a slight decline on our market, as well as in Smyrna at the beginning of the week, has been succeeded by a revival, partly caused by the European demand and partly by the news from the Interior announcing continued frosts. At present there is a certain firmness, prices being maintained with slight variations. The sales during the week were 44 cases druggists' at from ptrs. 185 to 195 per oke and 17 cases "softs" at from ptrs. 224 to 236. The arrivals in Constantinople amount to 3,025 cases, against 2,220 cases, and consist of 1,586 druggists' (1,177), 1,193 "softs" (717), and 244 Malatias (326). The stock is 1,382 cases, against 955 cases, and consists of 731 cases druggists' (532), "soft" 508 (293), and Malatias 143 (130). The figures in parentheses are those for 1912.—A further Constantinople advice, dated December 27, states: "Following on a sudden change in the Interior, where the severe weather continues, the market remains firm, and sellers have become few. Some important sales are expected for next week. The sales of the week are 28 cases druggists' at from ptrs. 180 to 202, 75 cases 'softs' at from ptrs. 212 to 242, and 15 Malatias at ptrs. 235." The arrivals are 3,036 cases, against 2,329, and the stock 1,277 cases, against 950 cases."

Messrs. T. & H. Smith, Ltd., in their monthly circular write: "The market has retained the advance established towards the end of November, the fluctuations since then having been limited. Opinions are divided as to the prospects for the immediate future, owing to the varying nature of the reports from the growing districts. From some quarters rumours were circulated that the autumn sowings have been a failure, but this is generally regarded as an exaggeration, the strength of the market during December being rather due to the steady demand for supplies. If buyers' requirements for the next few weeks are moderate, some decline from the present quotations may be looked for, as stocks at the ports are larger than for some time past. This is particularly the case at Salonica, where the stock for this period of the year is abnormally large, in spite of which, however, the holders refuse to sell at present except at very high prices. The arrivals at Smyrna to December 22 amount to 4,219 cases, against 2,206 at same date last year, and at Constantinople to December 19 to 3,058 cases, as compared with 2,220 cases last year. The stocks in Turkey are reported as under: Smyrna (December 22), 2,233 cases, against 1,404 cases same date last year; and Constantinople (December 19), 1,402 cases, against 962 cases.

ORANGE OIL remains quiet, with prices on the easier side, with *Sweet* offering at from 10*s.* 6*d.* to 11*s.* per lb. c.i.f. terms.

A Sicilian advice dated December 20 reports that the lack of demand and the fact that a few parcels were floating in the market caused a further price reduction during the week. At the present level, however, great resistance by sellers is becoming noticeable, only needy ones being willing to entertain bids. The majority of holders are quietly storing the oil, awaiting further developments.

A further Sicilian advice dated December 27 reports that the change in the tendency of the market foreshadowed in our last report has developed during the course of this week, causing prices to rise again very suddenly. In fact, the end of this month is seeing the usual "squeeze," as many operators over here seem quite confirmed in their habit of waiting until the last moment before covering.

A Catania report dated December 22 states that purchases for covering and for speculation having slackened, prices have declined again, and in the absence of export demand the market is quiet. *Bitter* orange is steady and rather firm, with limited offerings.

PEPPERMINT OIL steady, with good brands of Wayne County in tins offering at from 14*s.* 9*d.* to 15*s.* net per lb., and for H.G.H. 18*s.* is quoted. Sellers of Kobayashi-Suzuki for April-May shipment quote 3*s.* 9½*d.* per lb. c.i.f.; the spot price is 4*s.* 3*d.*

QUININE.—The second-hand market is ⅛*d.* firmer, inasmuch as with sellers few and reserved 1*s.* has had to be paid for small urgent requirements of German sulphate, the market closing rather buyers. The makers' price is

1*s.* 1*d.* There has been an inquiry from America on this market for 25,000 oz. Java.

The exports of "quinine, quinine salts and combinations" from Germany during the ten months ended October were as follows:

	1911	1912	1913
Kilos. ...	175,000	177,500	169,200
Marks ...	4,242,000	4,529,000	4,840,000

SENEGA is steady at 2*s.* 11*d.* net on spot, and at 2*s.* 9*d.* c.i.f. to arrive.

SANTONIN.—The advance on the part of the monopoly took place on December 31. The new prices are: Small lots, 112*s.* 6*d.*; 14 lb., 110*s.* 3*d.*; 28 lb., 107*s.* 6*d.*; 56 lb., 105*s.*; and 1-cwt. lots, 102*s.* 3*d.* per lb. net. Second-hand lots offer at about 104*s.* to 105*s.*

SHELLAC is about 2*s.* per cwt. dearer, with fair sales on the basis of 88*s.* to 89*s.* for the usual standard quality of TN, and free AC Garnet at 87*s.*; sales of the latter for January-February shipment have been made at 86*s.* 6*d.* c.i.f. Futures are also dearer, the sales including March at 90*s.* to 90*s.* 6*d.* and May 91*s.* 6*d.* to 92*s.* 6*d.*

SODA CAUSTIC.—Quotations ex wharf to the home trade are 10*l.* per ton for 76 to 77 per cent., and 70 to 72 per cent. 9*l.* 7*s.* 6*d.*

SODA NITRATE.—Current quotations are 11*s.* 3*d.* for refined and 10*s.* 9*d.* for ordinary. Liverpool quotes 11*s.* and 10*s.* 7½*d.* respectively.

TONKA BEANS.—A leading firm of importers have received a cable from Venezuela stating that the prospects are that the next crop of Angostura will not exceed, at the utmost, 20,000 lb., and prices are consequently likely to rise very considerably. If the crop over the whole area is only 20,000 lb., it certainly would not pay to collect except at very much enhanced prices. The *Hilary* has brought 69 cases tonka-beans from Para to Liverpool.

TURPENTINE.—American has advanced to 32*s.* 4½*d.* per cwt. on spot, and for January-April delivery a fair business has been done at 32*s.* 7½*d.*

VALERIAN-ROOT, owing to scarcity, is dearer at 30*s.* per cwt. c.i.f.

WAX, JAPANESE, is steady, with January-February shipment offering at 51*s.* c.i.f.

Continental Drug and Chemical Markets.

CASSIA FISTULA.—Some offers of the new crop were made, but in view of the high price of m.26 per 100 kilos. no interest was shown, especially as good old can still be bought at m.23 ex Hamburg warehouse.

ERGOT.—The Hamburg market is decidedly quiet and easier in consequence of increased offers from Russia, m.410 per 100 kilos. being quoted from the Interior; on account of the frost the roads have become passable, and goods are being despatched more quickly. The spot (Hamburg) price has also given way, and good sound can be bought at m.425 per 100 kilos.

HYDRASTIS is decidedly flat. Spot (Hamburg) can be bought at m.45.50, and for shipment m.44.50 is quoted.

KOLA.—According to reports from various quarters, it is confirmed that the new African crop is not anything like as large as at first presumed, and as consumers in consequence of the cheap prices remain buyers, the prices appear to be rising again. Good quarters cannot be bought under m.57.50 per 100 kilos., and halves are scarce.

LYCOPODIUM is dull. Cases (Hamburg) can be bought at m.325, and bags at m.315 per 100 kilos.

SENEGA is very firm; for spot (Hamburg) m.6.50 per kilo. has been paid. For shipment there are offers of m.6.60 per kilo.

Cassia Oil.

The "Perfumery Record" for December again urges, in an editorial, the desirability of securing a higher market grading of resin-free cassia oil, recalling the leading points of its previous articles on the subject. The requirements of buyers at the present time that the oil should be guaranteed free from resin, which is necessary in doing business with the U.S.A., and has been insisted upon by many purchasers in this country, has apparently led to considerable difficulties in Hong-Kong, so much so that opinions are being asked from various distillers and analysts in China as to the possibilities of production of oil of 80 to 85 per cent. strength, free from resin. The statement is made that under the present conditions of production it is not possible to exclude resin, but surely (says the "P. R.") the wiser step would be for the associations in Hong-Kong to use their endeavours to ship oil in its natural condition, making two higher grades, 85 to 90 per cent., and even 90 to 95 per cent.

Bari Almonds.

The British Consul at Bari, in his annual report, states that the outlook for the new almond-crop is not very satisfactory in that province. The estimates are for about one-fifth of a normal crop, and prices are expected to be high. The 1912 crop yielded over 20,000 tons of shelled almonds, which was the highest recorded for Apulia, but the market justified its reputation as being one of the most capricious. Opening prices were rather high, about 210 lire per quintal (4*l.* 4*s.* per cwt.), and a decline seemed to be unavoidable as soon as the most pressing requirements were covered. In anticipation of this decline, many shippers sold large quantities for late delivery at much lower rates than those ruling at the time the sales were made. It thus happened that when these numerous short sales had to be covered demand became so lively and pressing that the growers were able to steadily increase their demands, and from September 1912 till March 1913 prices advanced by no less than 50 per cent., with the result that the growers found themselves in the enviable position of selling a bumper crop at famine prices. The dark side of the picture was that with the greatly enhanced rates some of the short sellers were unable properly to perform their engagements. Quite a number of buyers abroad have suffered financially, including various British firms. In view of these facts, it cannot be too strongly impressed upon British importers to be very careful in the selection of their suppliers, and to entrust their orders only to shippers of established standing and respectability. Buyers should always bear this in mind when placing their orders, otherwise trouble is sure to come sooner or later, and the consular intervention which is then often solicited will seldom be able to save them from loss.

Citric-acid Materials.

"Lime Cultivation in the West Indies" is the title of a pamphlet issued by the West Indian Department of Agriculture, and sold for 9*d.* by Dulau & Co., 37 Soho Square, London, W. It brings the cultivation of limes in the West Indies up to date, nothing having been issued by the Department since 1908. In this interval the trade in limes has grown to a considerable extent, and good progress has been made in the manufacture of citrate of lime. Improvements have also been made in the manufacture of concentrated juice, whereby a better article is turned out, with less waste in preparation. Chapters are devoted to the preparation of oil of limes (both by ecuelle and distillation), raw lime-juice, citrate of lime, and the marketing of the various products. The lime-industry in Montserrat is also the subject of a report by the Imperial Department of Agriculture, in which it is stated that the exports of lime-products from the island of Montserrat for the year 1911 were as follows: Fresh limes, 5,183 crates (363*l.*); raw lime-juice, 102,597 gals. (3,692*l.*); concentrated lime-juice, 8,227 gals. (1,887*l.*); and citrate of lime, 33 tons (1,001*l.*). There were also 142 gals. of essential oils, but as bay and lime oils are at present included together under the official returns, the quantities of each cannot be obtained. Some difficulty has been experienced in the lime-industry through a disease associated with attacks of scale insects, accompanied by black blight on the leaves and twigs, and with root symptoms suggesting the presence there of a fungus parasite. The Department is investigating the matter. Below are given figures showing the extent of the lime-industry in Montserrat over the last seven years, as indicated by the number of gallons of raw juice produced. Concentrated juice is reckoned at 9 to 1 and citrate of lime at 900 gals. of raw juice to ½ ton of citrate. These figures do not show that the returns are as yet affected by the conditions mentioned, as the number of gallons produced in 1911 is higher than in the two previous years, and at least represents an average crop. The crop returns (gallons) for the years 1905-11 are as follows: 1905, 245,112; 1906, 200,363; 1907, 250,084; 1908, 307,237; 1909, 220,122; 1910, 200,241; 1911, 236,040.

MOROCCAN BEESWAX.—The exports from Tangier during 1912 amounted to 295 cwt. (1,951*l.*), against 308 cwt. (2,031*l.*) in 1911. Germany received the whole in 1912. From Tetuan 17 tons were shipped, as against 20 tons, and the shipments from Laraiche (all to France and Germany) were 430 tons in 1912, against 933 tons in 1911.

COPAL GUM.—There has not been much progress made in the development of gum copal in French Guinea. It is to be found in the mountainous territories, in certain districts on the littoral, and in the Tabana, Kabitaye, Canea, Bassia, and Benna countries. In 1911, 95 tons were exported to the United Kingdom.

Correspondence

Memoranda for Correspondents.

All communications must be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with.

Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest.

Correspondents are requested to write each query on a separate piece of paper. Every endeavour is made to reply to queries without delay, but insertion of the replies in "the next issue" cannot be guaranteed, nor, as a rule, can they be sent by post.

Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed.

Insurance Act Surgical Dressings.

[In our issue of December 27, p. 99, Mr. A. Timmins, Hon. Secretary of the Hartlepools and District Pharmacists' Association, asked surgical-dressings manufacturers for replies to the following questions:

1. Do G.O.W. bandages weigh on an average 10 per cent. heavier than W.O.W. bandages?
2. If so, why are the W.O.W. bandages given in the Tariff as heavier than G.O.W. bandages?
3. Do the weights given in the Tariff for W.O.W. bandages exceed the weight of the best quality bandages at present manufactured by the majority of houses?
4. Is it correct that warp 42 weft 27 is not in accordance with most manufactures?
5. Is not 4,000 sq. in. to the 1 lb. nearer the average manufacture of lint than 3,700?

Several replies were printed in the issue (p. 99 and Supplement, p. li) We append another letter, which goes somewhat more fully into the subject. The correspondence shows on the whole that the Tariff standards have been arrived at by an arithmetical method, rather than by reference to commercial qualities, each of which represents a machine which produces only one standard.—EDITOR, *C. & D.*]

SIR,—For the last few months we have had inquiries from the leading wholesale houses for quotations for dressings under the new Schedule of the Pharmaceutical Standing Committee's Tariff. The difficulty in manufacturing new qualities is that we should have to undertake different counts of yarn from what we are now using, and also make alterations which would be somewhat expensive and troublesome; but now that we know that the Tariff is, at any rate for the time being, adopted we shall be prepared to supply the new dressings in January. If the present Tariff stands as it is, it will not be likely that all manufacturers will quote alike. With regard to the W.O.W. bandages, no counts are given. Generally, W.O.W and G.O.W. should be made from the same cloth, when the white would be slightly lighter instead of heavier. As the Tariff stands, the manufacturer will have to make two cloths. The weight being specified in grains for each individual bandage, it is presumably intended to be particular and accurate. The actual weights cannot precisely agree with the Tariff. The 2 in. by 4 yds. W.O.W. is to be 2,400 grains, the 2½ in. by 4 yds. in proportion, correctly calculated as it is, should weigh ¼ more, or 3,000 grains as Tariff. The 2 in. by 4 yds. G.O.W. is to be 2,260 grains, one-fourth more for the 2½ in. would be 2,825 grains; the weight is given as 2,800 grains. Further, actual weights would not agree with proportional calculations, for each bandage has two raw edges which have often to be trimmed of loose threads. There are two such edges on a 1-in. width as on a 4-in. width. The immediately following observations apply generally:

Muslin Bandages.—No counts or weights are given. Different qualities will be supplied.

Flannel.—It does not state whether this is to be all wool, or Welsh flannel, which is a mixture.

Gauze.—Two ounces is a very light weight for a gauze 19 by 15. A gauze for which there is a very large demand is 19 by 12. One of the largest hospitals takes more than 400,000 yds. per annum, and many other hospitals are using it also. The weight of 6 yds., 19 by 12, is 2 oz. 9 drams, or more than 25 per cent. heavier than the gauze in the Tariff, which has more threads.

Cotton-wool.—The Tariff does not state if the weights are inclusive of cotton-wool and tissue, or net weights of wool, and tissue in addition. If net weights are supplied the 4-oz., 2-oz., and 1-oz. would be more useful and convenient in sheet form, folded and not interleaved. To be interleaved the wool has to be rolled, when the 1-oz. and 2-oz are long narrow strips.

Wood-wool.—There is practically no demand at all for this. Possibly cellulose wadding, or wood-wool wadding, is required.

We make at present six different qualities of W.O.W. bandages and eight gauzes, which seem to cover all necessary requirements. We are now asked to make something fresh, quite unlike any of these, and when we have made it, and distributed it through the usual channels, possibly a revised Tariff will be introduced.

We do not know how those who framed the new Tariff arrived at the various qualities. We think the best course would have been for them to have first visited several of the leading London hospitals to ascertain what bandages, gauzes, and lines are there used, and then have selected what they considered good average qualities. These, whatever they were, would have been readily obtainable from one or other of the leading manufacturers.

Replying particularly to Mr. Timmins' inquiries, our answers are as follows:

1. The differences in weight between white and grey on six different qualities are as follows:

	Grey 2½ in. by 6 yds.	*White*
"A"	16½ drms.	15½ drms. each
No. 1	21 ,,	18¾ ,, ,,
No. 2	13½ ,,	12 ,, ,,
No. 3	11½ ,,	10½ ,, ,,
No. 4	10½ ,,	9½ ,, ,,
No. 5	9 ,,	8½ ,, ,,

2. We are unable to say.

3. The Insurance W.O.W. bandage is the weight of a good medium quality.

4. The answer to this question is that the strength of the bandage lies in the warp, and, in our opinion, to have had a 44s warp and a 25s weft would have been better. The counts of bandages are not so material for practical purposes as the strength and substance. We think it would have been better to have stated the breaking-strains and weights. The total amount of substances in the W.O.W. extractable by boiling water should not exceed 2 per cent., in the G.O.W. 5 per cent. The breaking-strains of the above usual qualities 2½ in. G.O.W. are as follows:

"A"	57.2 lb.
No. 2	57 3 ,,
No. 3	46 2 ,,
No. 4	45.3 ,,
No. 5	39.7 ,,

The breaking-strains of the white are slightly less.

5. The areas of the usual plain and boric lints are as follows:

Plain lint No. 00	3,465 sq. in.
Plain lint No. 0	3,780 ,,
Boric lint, No. 06	1,552 ,,
Boric lint, No. 05	1,863 ,,

If the Tariff is again revised we should strongly recommend the omission of the W.O.W. bandages altogether. We think it quite unnecessary for a chemist to stock the two qualities for Insurance Act purposes. Both G.O.W. and W.O.W. are used for the same purpose, and they are very similar.—Yours faithfully,

For W. G. Taylor,
T. BARCLAY, Jun.

New Chalford Mills, Saltley, Birmingham.

Badge for the B.P.C.

SIR,—I quite agree with "J. W. H.'s" remarks, and consider it would be a very good arrangement to have neat, small badges for members to be sent with tickets; of course, a distinguishing badge could be worn by the stewards. My wife and I travelled from Southport to London with a lady and gentleman, and had no idea that they belonged to the same craft until, to our surprise, we met them at the Conference reception.

Yours faithfully,

Donegal. ROBT. S. CHAPMAN, M.P.S.I., F.S.M.C.

He Wants the Balance.

SIR,—Can nothing be done to hurry up the payment of the arrears of money due to sundry hardworking chemists for National Insurance dispensing? God wot! It is a very inadequate pittance after all, and in spite of the flourish of trumpets by interested parties we have yet to taste those rare and refreshing fruits spoken of by the "profits." One is tempted to ask what is the use of our Welsh friend and Parliamentary Secretary, and echo answers What? The doctors have received a share of the dividends from the great panel Act, but the chemist has not even been paid for what he has done!

Yours, etc.,
PANEL PHARMACIST. (68/2.)

Dental Chemists.

SIR,—Like several of your correspondents, I must take exception not only to the general trend, but to the great bulk of Mr. Allen's remarks relative to the members of the drug-trade performing dental work. Who, might I ask, are more capable of handling and using anæsthetics and antiseptics than chemists or druggists, who from the very nature of their calling understand the qualities and dangers of same and the safest method of using them, as well as, if not better than, some L.D.S.'s? Again, Mr. Allen must surely have a very poor opinion and conception of the knowledge and ability of his *confrères* from the implication thrown out relative to the importance of knowing the relation which the condition of the mouth bears to the general health. Does he confess ignorance here? His statement also of chemists usurping the position of dentists is absolutely wrong, and shows his ignorance of the law on the matter. Permit me to quote a few lines from the judgment delivered by Lord Chancellor Loreburn in the House of Lords on April 15, 1910, in Bellerby, Hayworth, and Bowen (see *C. & D.*, April 23, 1910):

"The Dentists Act did not prohibit any person from acting as a dentist, but it prohibited the addition of any description which might imply that the man was a qualified or registered dentist in the proper sense of the term. The Act did not prohibit any man from practising dentistry, or from the use of self-laudatory language, but it did prohibit the use of language which implied the possession of qualifications which would entitle to registration. If a man was not registered he was not entitled to say he was."

In plain terms, the Act does not prevent any person from performing dental work who is capable of doing it; it only prevents him from calling himself a dentist if he is not registered as such. Mr. Allen's comparison, therefore between chemists doing dental work and an unqualified person compounding is illogical because in the first case the chemist is acting within his rights and doing that which he is legally entitled to do; while in the second case the party in question would be acting illegally and doing what he had no right to do. [In Ireland it is illegal for any except pharmaceutical chemists, apothecaries, and medical practitioners to compound medical prescriptions; in Great Britain this principle applies only in the case of medicines containing poison.—EDITOR, *C. & D.*] Then, again, I would ask him is it not the case that at the present moment the co-operative societies, the stores, grocers, drapers, hardware and oil merchants are all encroaching on the chemists' trade and handling all classes of sundries that formerly were his exclusively, even such specialities as Parrish's Syrup, malt and oil, cod-liver oil emulsion, and liq. ammoniæ? In many cases I know their sales are far in excess of the chemists'; is it wrong therefore for chemists or druggists as business men to develop the dental side of their business, if they are capable of doing so, when they are not acting illegally? They are thus only doing what was done by the trade for many years prior to the passing of the Dentists Act. If other trades are developing their business by exploiting the chemists' specialities, then if the chemist is going to hold his own he must follow suit and develop his business by other lines also, and realise that professionalism is fast becoming a phantom of the past and chemists' shops developing into fancy stores, dentistry being one of the side-lines and in some cases superseding and becoming superior to the drug department itself. Besides, as has already been pointed out, the number of registered dentists is inadequate to supply the demand for dental work at any price, much less at reasonable prices to meet the requirements of the working classes, so that the unregistered man, let him be chemist or otherwise, is here to stay. Let the British Dental Association bring forward a Bill suitable to meet the present condition of affairs and have it settled once and for all, for the longer it is deferred the worse will the situation become. Instead, therefore, of Mr. Allen decrying what his fellow chemists are doing, he should show *esprit de corps* and endeavour to emulate their efforts.

Faithfully yours,
JAMES D. CARSE,
Secretary, Dental Society of Ireland.

SIR,—Writing as a dentist by registration, after ten years' experience, more or less, of dental work, I am by no means averse to an increase of the registered, provided some evidence of fitness is forthcoming apart from a mere signboard. There are plenty of men who have served an apprenticeship to dental work, and these I would let in readily. The average dental chemist has not a leg to stand on in this matter. We all know him. He is usually a young man, comparatively; he has served his time to a chemist, not a dentist; is in business for himself as a chemist, and has tried photo apparatus, spectacles, etc., with small success; now, on the strength of an occasional extraction, he claims recognition. I hold that he is not in the same category as the mechanic and operator already referred to; besides which he has, as a chemist, been recognised under the Insurance Act. I think and hope that fact will be remembered when he comes to apply for recognition as a practitioner of dentistry. My own efforts with some other dentists is in the direction of opening the doors wide to all who can bring evidence of having gone through an apprenticeship to dental work. These I would let through on condition that dental work alone is practised. I do not think there will be any more dual qualifications. If a dental chemist has the requisite knowledge let him through, but on condition that he practises dental work only. The two professions are not in my experience compatible. But what an object-lesson is this controversy to the herbal chemist and unqualified generally! The number of unregistered appears to be doubtful. "Dens" puts it apparently at 20,000, and Mr. Benson Harries at 8,000. But either the one or the other, supposing all admitted, the same thing will crop up in ten years, for we shall always have the unqualified with us; then who so eloquent *per contra* as Mr. Benson Harries, "Dens," and others?

QUALIFIED AND REGISTERED. (70/62.)

SIR,—If you are able to spare space I should like to state more definitely than before my reasons for suggesting that pharmacists should dissociate themselves from those of their *confrères* who practise dentistry without the proper qualification.

Modern pharmacists generally recognise that the scope of their vocation need not be limited entirely to the dispensing and compounding of medicines, and that pharmacies must to-day be carried on with due regard to the commercial side. Despite this fact, there must be some boundary-line to the capabilities and practices of a pharmacist. Pharmacists have so many directions in which they can apply their training without encroaching unfairly upon work for which they are not qualified that those who overstep the mark should surely not expect encouragement. The fact that the dental profession is less crowded than any other is well known, but that does not justify the existence of a heterogeneous collection of individuals practising dentistry under various titles other than those of "dentist" and "dental surgeon." It may or may not be true that the present number of dental surgeons on the Register could not cope with work on a national basis. That is a question for dentists to decide. On the other hand, it is not to be supposed that the powers that be would, in this democratic age, allow even those who have been pulling out teeth for fifty years to practise on the nation at large without some evidence of a deeper knowledge. It is

easy to concede that a pharmacist must be in a better position to study dentistry successfully than a casual labourer, and that the question of vested interests is usually a consideration in practical politics. If pharmacists generally support those of their fellows who practise dentistry under various titles other than "dentist" or "dental surgeon," what will be the position of pharmaceutical representatives on the recently formed Pharmaceutical Committees if at any time they are confronted with the fact from the medical side? Pharmacists cannot fairly claim to carry out pharmaceutical, medical, and dental work, so that the prescribing and dental chemists cannot be logically recognised by their fellow-craftsmen.

The Chemists' Dental Society claim that members must satisfy their Executive of fitness to undertake dental work before election. It would be interesting to know the nature of those requirements and the serious objections to seeking registration by examination rather than recognition *en bloc* without examination. It is only practical for me to view this subject from the point of view of a "non-dental chemist" who happens to be for the time being a pharmaceutical representative on several committees. From that standpoint alone it appears essential to me that any encroachment by pharmacists upon medical or dental preserves should be strongly discountenanced by the pharmaceutical craft. The subject would form quite a good one for discussion before local Pharmaceutical Associations. If such a debate could be arranged (for example, with any of the London Associations) I should be surprised if the Executive of the Chemists' Dental Society could obtain other than derogatory advertisement from the encounter. On the other hand, if that Executive should succeed in proving in official quarters that their members are sufficiently efficient to be placed on a footing with dental surgeons who have qualified in the orthodox manner, it would be a pleasure to congratulate them and admit ignorance of the subject. I am, faithfully yours,

C. T. ALLEN.

Learning Languages.

SIR,—My shop is situated near a music-hall, and so many foreigners came unable to speak English that I made up my mind to learn French. It is exactly three years ago since I started French. I bought books with imitated pronunciation, and grammars, and subscribed to a French paper, "Le Petit Parisien," which I got by post every morning at one penny a day. In six months I could speak French fairly well; at the end of the first year I was quite fluent. At the beginning of the next year I made up my mind to learn to speak Italian, Spanish, and German. I followed the same method as with the French, and at the end of the second year I could speak the four languages. The past year I have read Spanish, German, Italian, and French novels which I get in the local Free Library. At present I am reading "Don Quixote" in the original Spanish. I never had any teacher but myself, and have worked on a method of my own, to which I attribute my success. German I found worst; it nearly broke my heart, and I thought I would have to give it up, but doggedness and determination pulled me through. It has paid me quite well. I have a card in the theatre written in five languages and announcing the fact that I speak them, and have done well with the foreigners. I meet plenty of Italians, Germans, and French, but very few Spaniards; indeed, the first Spaniards I met only a month ago. I had studied Spanish for two years, but had never heard it spoken. I went over to the theatre and told them in Spanish I would like to have a talk with them, and we sat and talked for half an hour. It was a bit slow work for me to reply, but by the end of the week I was pretty fluent. Besides music-hall artistes I have several high-class customers who speak French and German and one lady who speaks Italian fluently, and I am quite pleased with the financial result, as also with the pleasure in being able to speak and read. I would recommend everybody to learn to speak French; it is a beautiful language and not very difficult. As your correspondent writes, the Continent is far ahead of us with regard to languages; I have found that true. I have very little time for study, only the evenings and Sundays when business is finished; but I attribute my success not so much to hard study as to methodical constant practice. I can thoroughly recommend the study of languages to chemists, and anyone who perseveres and conquers, say, French, if by this letter he was started on the road will bless some day your humble

ARCHIEVAKE. (65/43.)

Subscribers' Symposium.

For questions, answers, incidents, and interchange of opinions among "C. & D." readers.

Dr. Scott's Orange-syrup for Influenza, etc.

If this preparation is not a proprietary article, *N. S.* (70/69) would like a formula for it. Can any reader oblige?

Protection Congratulations.

"Heartiest congratulations to Woodward's Gripe-water on joining the P.A.T.A. May 'Pears,' 'Eno's,' 'Doan's,' etc., go and do likewise. It is business myopia to do otherwise."—*W.* (67/2).

Appreciations.

"By watching your trade report I save my subscription over and over again. I have much pleasure in enclosing cheque for 1914."—(140/3.)

"Cheque enclosed for my subscription for the *C. & D.* I consider it a necessary journal for every pharmacist, being full of most useful matter, and I always look forward to Friday's noon post for its arrival."—(141/17.)

A Warning.

We are asked to warn chemists in London in regard to a man who offers a penny line as an imitation of Zam Buk, he professing to be the manager of the Zam Buk Co. He guarantees to dispose of a third of what the chemist buys, and to advertise him as agent, to give house to house distribution, etc., but after the chemist lays in his stock he discovers too late that the promises are not made good.—(41/38.)

A Mile-limit Grievance.

There are some 2,000 insured persons on the panel doctors' lists for my town and neighbourhood; of these one-half are claimed by the doctors under the mile limit. On making careful measurements on a large-scale map, I find that quite a crop of the insured persons so claimed are living well within a mile of three panel chemists.—*R. A. G.* (70/40).

[Our correspondent should call the attention of the Insurance Committee to the matter.—EDITOR, *C. & D.*]

Whose is it?

In your reply to an inquiry as to whom a coin belongs which is found on the customers' side of counter, you say to the employer. In my humble opinion it is open to doubt, as, in the event of not being claimed, what reward is the finder to get for his honesty? Someone might say, "Findings, keepings," but I think the fairest way would be for the employer to put the find away for a reasonable time, and, in the event of no one claiming same, to return it to finder, or some proportion of it. The writer once picked up a coin on the doorstep of his employer's premises, and as it was beyond the door when shut he was told it was his.—*S. R. C.* (65/46).

Yule-tide Moralisings.

"I like to sit in this old pharmacy for an hour in late December, when all the others have scuttled off upon their respective pleasures as if they loathed the place. More than half my life has been spent here, and I love the shop for its teeming memories. I inspect a knife-hacked door in the cellar, which bears a dozen dates, each just over a rough horizontal lines. They are our respective heights at the dates in question, and I smile a little sadly when I remember that "H. D., 1896"—a full head beneath me now—is the present writer and the sole survivor of the old brigade. There is Dick, who is ranching in Canada now; X., who is a doctor somewhere in the Antipodes; Y., who has a thriving pharmacy in ——; and Z., who was wont to take all we could share, and grudgingly agreed sometimes to give a fractional offering in return. Z., wherever he may be, will be a wealthy fellow now. And poor little G.—who strove hard to teach us elementary theosophy—rests in the little churchyard above a field of battle whereon (so he confidently asserted) he had died bravely three hundred years ago. Such is the long arm of coincidence."—*H. D.* (85/41).

Legal Queries.

The majority of difficulties in regard to trade law are anticipated by the legal information printed in "The Chemist and Druggist Diary," 1914. See especially pp. 469-499.

A. E. M. (72/8).—Chemists are exactly in the same category as drapers and stores as regards the sale of alcoholic perfumery; all are enabled to do it on account of a Treasury concession. The exemption which chemists enjoy as to the sale of spirituous medicines is quite a different matter.

Stone (29/91).—A cake of soap containing 0.25 per cent. of corrosive sublimate is a "preparation or admixture containing corrosive sublimate," therefore is in the second part of the poisons schedule, and when sold soap should be labelled "Poison" and with the name and address of the retailer. This reply is from the legal point of view; whether the corrosive sublimate can actually exist in soap is another matter. The same applies to mercuric iodide

Auditor (68/28).—The Companies Act, 1908, Section 112, requires that "every company shall at each annual general meeting appoint an auditor or auditors to hold office until the next annual general meeting"; further, that a director or officer of the company shall not be capable of being appointed auditor of the company. The Act does not stipulate that the persons holding this office shall be chartered accountants.

E. T. (68/32) asks if the superintendent of a limited chemists' company is exempt from the provisions of the Shops Act, 1912. For the reply to that question reference should be made to the paragraph "Shop Assistant" on p. 493 of the *C. & D. Diary*. If the superintendent is employed by the company and engaged wholly or mainly in connection with the serving of customers, or the receipt of orders, or the despatch of goods, he has to get his half-holiday every week like other employés.

Salts (68/11) asks if he may pack a solution labelled as follows: "*Hunyadi Salts*, prepared synthetically in accordance with the requirements of the German Pharmacopœia," without infringing anyone's trade rights. [The proposed label is incorrect in so far as the formula is not given in the German Pharmacopœia, but in the Supplement to the German Pharmacopœia. So long as that fact is clearly stated on the label and the article is sold without colourable imitation of anything else already on the market the sale is not an infringement of the law.]

Delta (65/53) writes: "Before presenting oneself for the Minor it is necessary to have a certificate that one has been in the trade at least three years. Would the time spent at a school of pharmacy be accepted as part of the three years?" [What is required is that the applicant shall produce on entry a declaration signed by a registered chemist and druggist or medical practitioner to the effect that he has been practically engaged for three years in the translation and dispensing of prescriptions. The official form has a space for stating where the time has been spent, but the Pharmaceutical Society has no control over that part.]

Insurance Dispensing Queries.

FORMALIN LOZENGES.—*C. W. E.* (69/24) asks how to charge for formalin lozenges ʒij. [We presume tab. formaldehyd. B.P.C. was supplied. Charge at rate of 4*d.* per doz. There should be sixty-four fifteen-grain tablets in ʒij., making the price 1*s.* 9*d.*]

DEPOSIT CONTRIBUTORS.—*F. S. B.* (61/71).—A deposit contributor under the National Insurance Act who insured before January 12, 1913, is entitled to Medical Benefit until January 15, 1914, notwithstanding that the cost of this may exceed the sums he or she has paid in at the post office, and the period of such benefit may be extended at the discretion of the Insurance Committee concerned. In the case of deposit contributors joining after January 12, the granting of Medical Benefit after the sums paid in have been expended on benefits is entirely at the discretion of the Insurance Committee.

PRESCRIPTION-BOOK ENTRIES.—*F.C.S., M.P.S.* (68/3) writes: "I have understood a prescription containing scheduled poisons necessitated either copying ingredients and name and address of person to whom delivered or filing. On reading your *Diary*, it would appear as though the address is not required, excepting in case of apothecaries dispensing. It will be highly satisfactory if address is not legally necessary in the case of prescriptions for insured persons, as addresses are not given on them, and as they stand at present I presume all that is necessary is to enter them in a book kept for the purpose?" [Yes. While it is the practice of registered chemists to insert the name and address of patients for whom poisons are dispensed in the prescription-book, this is not, and never has been, required by law. We quote in our *Diary* the actual words of the Pharmacy Acts, 1868 and 1869. The same applies to apothecaries. See also the paragraphs on "Dispensing" and "Insurance Prescriptions" on p. 475 of our *Diary*; the former also notes the special conditions regarding medicines containing arsenic. The 1868 Act merely requires *the name of the person to whom the dispensed medicine is sold or delivered to be entered in the book*; whether or not that is the patient is an open question. In the case of infants the name of the guardian of the child should certainly be entered in the prescription-book, along with that of the patient. This point does not arise in the case of insured persons, because the prescription-form meets fully the law's requirements, "—— Insurance Committee" being on the top of the prescription, the name of the patient immediately following.]

Miscellaneous Inquiries.

We do not undertake to analyse and report upon proprietary articles, and when samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how.

We do not as a rule repeat information which has been given in this section during the past twelve months, as it occupies space which can be more profitably utilised for other information. In such cases the numbers are mentioned, and if querists cannot refer to these they may obtain the numbers from the "C. & D." Office at the published price, usually 6d.

E. B. (43/29).—SOFTENING ANIMAL SKINS.—Dried skins of animals which have become hard can usually be softened by the application of strong solution of ammonium chloride. This requires dabbing on the skin daily until the desired effect is produced.

P. (137/14).—(1) WHITE OF EGG is the substance employed with sugar for icing cakes. (2) FACTITIOUS OIL OF RHODIUM.—The following are given in "Pharmaceutical Formulas":

1.		2.	
Oil of copaiba	ʒj.	Oil of sandalwood	ʒss.
Oil of almonds	ʒj.	Oil of rose-geranium	♏xv.
Otto of rose	♏x.	Oil of almonds	ʒiss.
Oil of rose-geranium	♏x.	Mix.	
Mix.			

Chloride (62/19).—Your questions regarding bleaching yarn and the manufacture of chlorinated lime on a large scale are best dealt with in Thorpe's "Dictionary of Applied Chemistry," a new edition of which has been reviewed in THE CHEMIST AND DRUGGIST. It is an expensive work, but you could probably consult it in the reference library in your city.

F. R. H. B. (40/27).—MEDICINAL USES OF CUMARIN AND HELIOTROPIN.—Cumarin, or coumarin, finds a use in surgery as an addition to iodoform, to which it is added with a view of modifying the objectionable odour of the iodoform. It has also been employed in solution (1 in 2,000) as an insecticide, and as a lemonade-flavouring it has been suggested in the proportion of half an ounce of a 1-in-200 alcoholic solution to the bottle. Heliotropin, or piperonal, is an antiseptic and antipyretic, the dose being 15 grains every two or three hours. It is employed in skin-diseases and in surgical practice.

R.G.A. Bangalore (68/24).—You will find full information in regard to the MINOR EXAMINATION in our Educational Number of August 16, 1913. There is also in that issue a list of books suitable for students for the Minor examination. It is not held anywhere in India, but only in Edinburgh and London.

D. G. (68/54).—(1) CROTON OIL is, from the medicinal point of view, perfectly stable, old samples being quite as active as those that are recently pressed. (2) Formaldehyde combines with the PROTEIDS OF MILK, making them hard and indigestible, with the result that its use as a milk-preservative is prohibited by the Local Government Board.

J. N. K. (Cairo) (49/28).—The preparation you name is a proprietary one, but an imitation of it will be found in the German formulæ given in *The Chemist and Druggist Diary, 1914*, p. 221.

Chesnut (125/13).—STAINING A VIOLIN.—The following are methods suggested for obtaining a walnut or brown stain on violins The wood must be free of varnish before employing the stains:

1. Potassium-bichromate solution.
2. Potassium-permanganate solution.
3. Nigrosin, Vandyke brown, Bismarck brown, of each ½ oz., mixed with 2 pints of spirit.

The last one meets your requirement of a vegetable stain.

J. R. (47/61).—TREATMENT OF DISEASES OF DOGS AND CATS.—In addition to "Veterinary Counter Practice" (*C. & D.* Office, 4*s*), the following are useful: Winslow's "Prevention and Treatment of Diseases of the Domestic Animals" (Jenkins, New York); Barton's "The Cat: Its Management in Health and Disease" (Everett & Co.) (the second half of the book deals with disease); Hill's "Diseases of the Cat" (Baillière); and Smith's "My Dog is Sick" (P. S. King & Son).

Pot. Brom. (47/58).—THE CHARGE FOR OXYGEN in London is 7*s.* 6*d.* for 20 ft. (doctors 5*s.*); 10 ft., 5*s.* (doctors 3*s.* 6*d.*). As you live in the country there will be charges for carriage to be added.

Transkeran. (Cape Province) (48/7).—A more strict adherence to aseptic conditions will probably prevent the trouble of fermentation in the bottles of lemon-squash. We are assuming that you employ sufficient preservative. If then the bottles and corks are scalded before use the trouble should not recur.

Kopenick (Barcelona) (87/14).—(1) The use of silicate of soda is stated to enable the maximum amount of water to be retained in soap. Your inquiry, however, is not clear. (2) We cannot add to the reply we gave you some time ago regarding the filtration of varnish. (3) MANUFACTURE OF SODIUM PERBORATE.—The process is thus described in one of the patents which cover the manufacture: Molecular proportions of sodium peroxide and of boric acid are caused to react in aqueous solution and an equivalent quantity of an acid (*e.g.*, hydrochloric acid) that will form a readily soluble alkali salt is added, the containing vessel being meanwhile cooled. The crystals that form are separated, washed with ice-water, and dried at not above 35° C. The hydrated perborate thus obtained may be deprived of water of crystallisation by drying *in vacuo*. (4) POTASSIUM "META-BISULPHITE" is prepared by saturating a solution of potassium carbonate with sulphurous anhydride and adding alcohol. The salt separates as a white crystalline powder. A cheaper way is to allow the salt to separate from a hot, strong solution of potassium acid sulphite.

C. & Co. (62/51).—WHITE SPOTS ON NAILS.—The treatment for removing white spots on the finger-nails consists of applying the following resinous plaster:

Myrrh	3j.
Black pitch	3j.

Melt together and make into a plaster. This is applied at night, covered with a bandage, and removed in the morning. Any adhering plaster is dissolved off with spirit of turpentine.

W. F. Y. (59/29).—BOOKS ON LOCOMOTOR ATAXIA.—Ferrier's "Tabes Dorsalis" (5*s.*) and Jaworski's "Nouveau Traitement du Tabes" (Maloine, Paris, 3f. 50c.). The treatment is described in general treatises on medicine—*e.g.*, Quain's "Dictionary of Treatment." Recently salvarsan has been suggested in this disease, but has probably not been included in the text-books. Jaworski's method referred to above is that of Dr. Legrand Denslow, of New York, and consists of the treatment of any stricture or sensitive area in the urethra, combined with tonics and the "simple life."

Golfer (49/13).—POWDER FOR DESTROYING WORMS ON LAWNS.—We have had several samples of the powder you send submitted to us within the last few years. It has a basis of dried blood, cotton-meal, and bone-powder, with a fair proportion of mustard bran. It is intended to act as a fertiliser, in addition to forcing the worms to the surface of the lawn.

P. H. G. (58/19).—It is rather difficult to answer your inquiry without comparing the two boot-polishes. The one you send has a fairly high melting-point, and the wax is diluted with a turpentine substitute. It may be that the wax used accounts for the difference your customers notice You could get some useful hints on the manufacture of boot-polish from an article in the *C. & D.*, May 24, 1913, p. 66.

W. S. B. (65/37).—The basis of modern metal-polishing creams is usually Kieselguhr, but kaolin, silica, and the like are also employed.

Quillaia (65/60).—GLOVE-CLEANING PASTE.—We have looked further into the matter as requested, and submit the following additional formulæ, with which you can continue your experiments:

1.

Coconut-oil soap ...	3j.
French chalk ...	3ies.
Powdered quillaia	3ss.
Oil of lemon ...	3ss.
Water	3iv.

Shred the soap and dissolve in the water by heat; add the oil of lemon, the quillaia, and the French chalk, using more of the last named if needed to form a stiff paste.

2.

Curd soap	3xvj.
Water	3viij.
Melt and add:	
Kieselguhr ...	3ij.
Oil of lavender ...	3ij.

3.

Castile soap ...	3viij.
Borax	3j.
Caustic potash ...	3j.
Glycerin	3j.
Alcohol	3ij.
Water	3xlij.

Dissolve the borax in 2 pints of water, and bring to a boil; during boiling add the soap in shavings and dissolve. Now add the caustic potash dissolved in the rest of the water and the glycerin, stirring thoroughly to mix.

4.

Coconut oil ...	22 lb.
Caustic soda ...	4½ lb.
Water	7 gals.

Dissolve the soda in the water, then add the oil, boiling until saponified. Simmer until pasty, then run out into the tins.

Goldsmith (46/61).—(1) LIQUID DOG-SOAP.—The following formula illustrates the method of making liquid dog-soap:

Sapo. mollis	3xxx.
Ac. carbol.	3iij.
Ol. eucalypti	3j.
Aquam ad	Cj.

Dissolve the soap in hot water, and when quite cold add the other ingredients.

(2) SEALING-WAX.—There does not seem to be any method of melting sealing-wax quite as convenient as by using Thompson's atmospheric gas jet. The spirit-lamp flame is good, but not so handy as gas.

G. W. (54/56).—SILVERING MIRRORS.—The modern process has been described several times in the *C. & D.* (see November 23, 1912, p. 65), but this is not in such detail as would be required by one who is not a chemist. Your customer had better purchase Volume III. of Spon's "Workshop Receipts" (3*s.*), which gives a good description of several methods used in silvering glass.

J. W. (67/15).—DYEING BILLIARD BALLS.—The method described in "Pharmaceutical Formulas" is as follows:

(1) Wash the ball by immersing in benzine for a few minutes; take it out, pour some benzine over it, and wipe dry. (This is better preceded by washing with soap and water.)

(2) Dip it in an acid-bath—30 drops of nitro-muriate of tin solution to 3 oz. of water. Allow to remain in the bath for a few minutes.

(3) Give it the dye-bath, which for red may be an aniline one—aniline cardinal, 1 in 20 of water, or Judson's cardinal and water equal parts.

You should refer also to THE CHEMIST AND DRUGGIST, December 16, 1911, p. 66, where a correspondent describes the method he employed for bonzoline balls.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," January 15, 1864.

Our Fresh Start.

We appear before our readers in a new dress, but not in a new character. We have grown bigger, but all our old subscribers will recognise the features of THE CHEMIST AND DRUGGIST of former years. We are what we have always been—the journal of the trade from which we take our name, devoted to the interests of its members.

We have in former numbers explained the reasons which induced us to alter our dress; but we may again state that the chief reason was the uncomfortable tightness of the old one. We found that the book-form prevented our free growth, so we discarded it and adopted the habit of the leading class journals. We have now not merely a larger surface of paper to work upon, but a form in which printed matter can be greatly compressed without appearing heavy. We do not think it necessary to describe the scope and objects of THE CHEMIST AND DRUGGIST, as they are plainly revealed by the contents of the present number.

ALFRED BISHOP, Ltd.

SPECIALISTS IN

Effervescent Products.

BISHOP'S
Natural Fruit Saline
(Sugarless), P.A.T.A.

Citrate of Magnesia.
Registered Design.

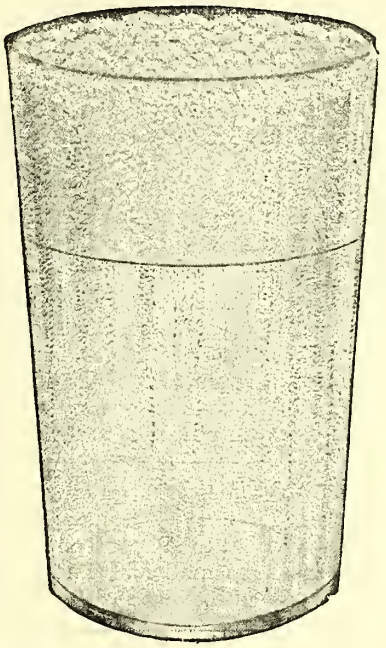
Citrate of Magnesia.
Second Quality.

Liver Saline.

Universal Saline.

Grape Saline.

Health Saline.
In Tins.



VARALETTES.
Gout, Vichy,
Kissingen, and
other Mineral Water Salts.

Granular Effervescent
Caffeine, P.A.T.A.
Calcusol.
Citrate of Lithia.
Citrate of Piperazine.
Livura, P.A.T.A.
Sulphate of Soda, &c.

All Bishop's Effervescent Preparations form Clear Sparkling Solutions.

Write for Samples and Prices, free on application.

ALFRED BISHOP, Ltd., Manufacturing Chemists,

"Speck's Fields," 48 Spelman Street,

Mile End New Town, LONDON, N.E.

ESTABLISHED 1857.

BRUNNER, MOND & CO.'S

Alkali Products.

Crescent Brand.

These products are made by the Ammonia Process, and are distinguished from others by their great purity.

Bicarbonate of Soda.

This Bicarbonate answers all the requirements of the British Pharmacopœia. It is a pure, refined, and recrystallised salt, particularly free from metals or any base other than soda. This sodium bicarbonate is specially suitable for the preparation of granular effervescent preparations and salines, seidlitz powders and baking powders, and is well adapted for other medicinal and domestic purposes. It is the purest and cheapest sodium bicarbonate made.

Concentrated Crystal Soda.

This sodium compound (sodium sesquicarbonate) is a variety of carbonate of soda in small silky crystals, containing much less water than ordinary washing soda; 1 lb. of it does the work of 2 lbs. of washing soda. Concentrated crystal soda is excellently suited for chemists' trade; they can make a speciality of it, and it is also suited for making water-softeners, brush powders, hair-wash powders, and the like.

Pure Alkali.
58 Degrees.

A dry, white powder: dissolves quickly and easily in water, making an excellent detergent for use by printers, bleachers, dyers, and for bottle washing. Is nearly equal to 99 per cent. carbonate of soda; is much used by glass, paper, and soap makers. The best alkali for soap powders and washing powders.

Pure Soda Crystals

Caustic Soda.

Manufactured from pure Carbonate of Soda, and supplied of all degrees of strength.

Bleaching Powder.

Carbonate of Ammonia

(Lump and Powder).

Retailers can obtain these products through any Wholesale house by specifying Brunner, Mond & Co.'s "Crescent" Brand. The Manufacturers supply wholesale quantities only, and will quote on application to

BRUNNER, MOND & CO., LIMITED, NORTHWICH, CHESHIRE.

HOWARDS & SONS

(LIMITED)

ARE NOW INSTALLED IN THEIR

New Offices & Warehouse at Ilford

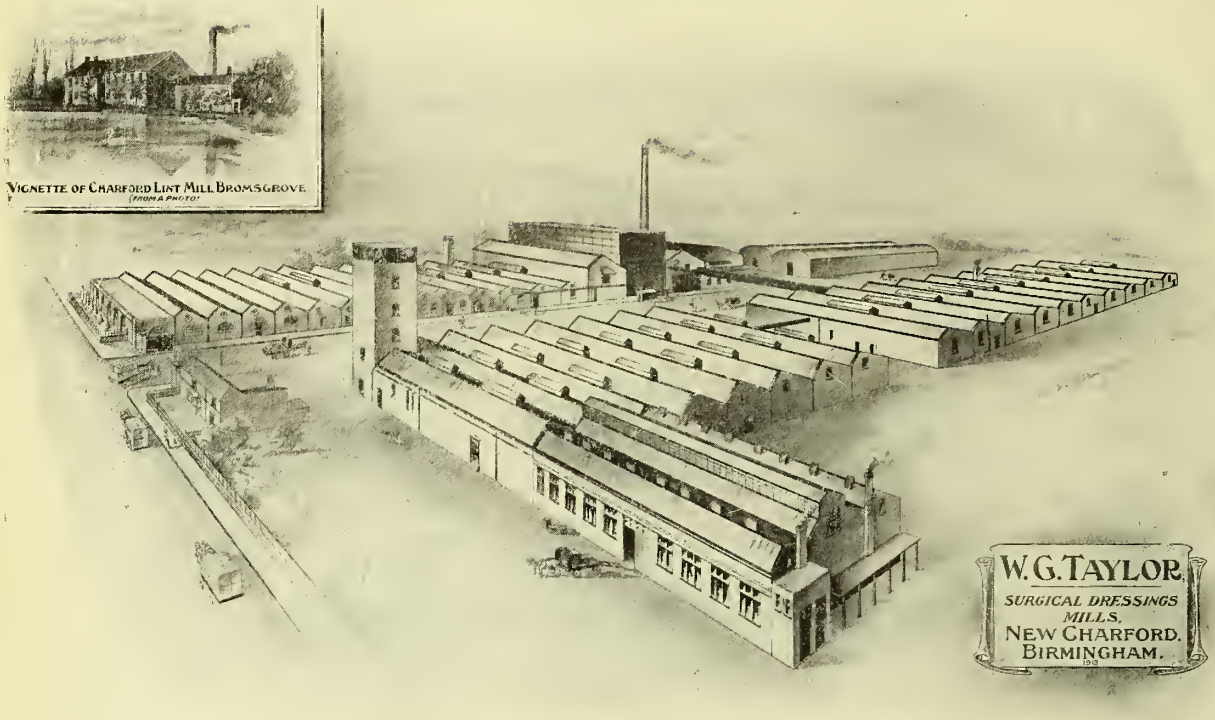
OF WHICH DUE NOTICE HAS BEEN GIVEN, AND HOPE THAT THE INCREASED SPACE AND IMPROVED FACILITIES NOW AVAILABLE WILL ENABLE THEM STILL FURTHER TO EXTEND THEIR CONNECTION WITH THE TRADE THROUCHOUT THE WORLD, AND ESPECIALLY WITH THEIR OLD FRIENDS, TO WHOM THEY VERY SINCERELY WISH ALL PROSPERITY IN THIS NEW YEAR.

NEW TELECRAPHIC ADDRESS:
"QUINOLOGY ILFORD."

NEW TELEPHONE NUMBERS
ILFORD 162, 163, 164
(*Private Branch Exchange*).

ILFORD AND STRATFORD - - LONDON

ESTABLISHED 1797.



WHOLESALE ONLY.

Tel. Address : "WAND." *NAT. TEL. 1145.*

THE WAND MANUFACTURING CO.,

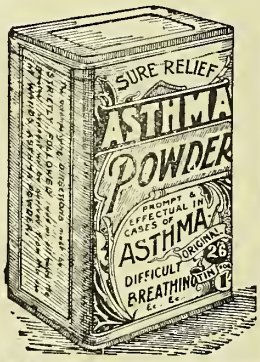
21 WELLINGTON STREET, LEICESTER.

SPECIALISTS IN

PILLS, TABLETS, CAPSULES,

PRIVATE FORMULAE faithfully COMPOUNDED.

COUNTER ATTRACTIONS.



BEST DRUGS. Send a P.C. for New List. SPECIAL QUOTES TO LARGE BUYERS.

STEVENS' CONSUMPTION CURE

Supplies of the above can always be obtained from the principal wholesale houses, sizes and prices as follows :

	To the Trade.	Advertised Selling Price.
2 oz.	3/6	4/6
6 oz.	8/6	11/-

Chemists are only supplied on the distinct understanding that STEVENS' CONSUMPTION CURE will not be sold for less than the advertised prices.

Sole Proprietors and their only Address—

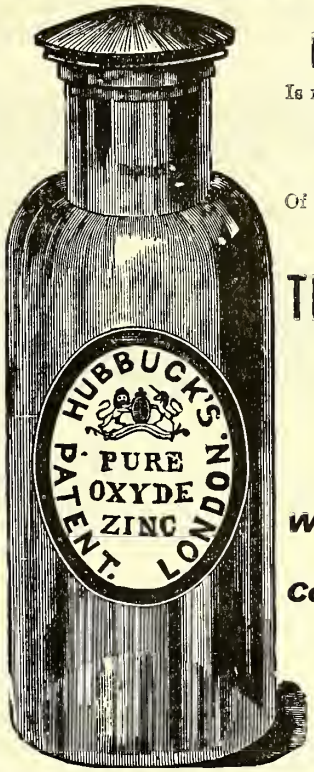
C. H. STEVENS, Ltd., Wimbledon, LONDON, S.W.

HUBBUCK'S PURE OXIDE OF ZINC.

Sold by the following Wholesale Druggists in Boxes of 7 lbs. and 14 lbs. stamped by the Manufacturers; also in 1-lb. Boxes and 1-lb. Glass Bottles :—

Allen & Hanbury's (Lim.).
Bates Bros. & Stevenson (Lim.)
Barron, Harveys & Co.
Bell, Jno., & Co.
Bleasdale (Lim.) [(Lim.).
Boots' Pure Drug Co.
Burgoyne, Burbidges & Co.
Butler & Crispe
Clay, Dod & Co.
Cockburn & Co. (Lim).
Corbyn, Stacey & Co.
Dakin Brothers.
Davey Hill & Co.
Duncan, Flockhart & Co.
Evans, Gadd & Co.
Evans Sons Lescher & Webb (Lim.).
Ferris & Co.
Gale & Co.
Glasgow Apothecaries' Co.
Glasgow New Apothecaries' Co.
Goodall, Backhouse & Co.
Harker, Stagg & Morgan.
Harkness, Beaumont & Co.
Hatrick, W. & R., & Co.
Hearon, Squire & Francis.
Hirst, Brooke & Hirst.
Hodgkinson, Prestons & King
Hodgkinsons, Clarke & Ward.
Horner & Sons.
Huskisson, H. O., & Co.
Inman's Stores (of Edinboro').
Ismay, John, & Sons.
Lofthouse & Saltmer.
Oldfield, Pattinson & Co.
Pinkerton, Gibson & Co.
Raimes, Clark & Co.
Raimes & Co.
Rankin & Borland.
Silversides, R. B. G.
Southall Bros. & Barclay.
Sumner, R. & Co.
Taylor, James.
Thompson, John (Lim.).
Willows, Francis, Butler & Thompson.
Woolley, Jas., Sons & Co. (Lim.).
Wright, Layman & Umney (Lim.).
Wyleys (Lim.)

Barry, E. J., New York.
Carter, Carter & Kilham, Boston.
Finley & Branswig, New Orleans.
Langley & Michaels, San Francisco.
Lehn & Fink, New York.
McKesson & Robbins, New York.
Muth Brothers & Co., Baltimore.
Roller & Shoemaker, Philadelphia.
Schieffelin, W. H., & Co., New York.
Shoemaker, R. & Co., Philadelphia.



HUBBUCK'S PURE OXIDE

Is made by Sublimation, and is Warranted to contain upwards of

99 PER CENT.

Of Pure Oxide; in fact the impurities are not traceable.

THOS. HUBBUCK & SON, LTD.

(Established 1765).

24 LIME STREET, LONDON, E.C.

Manufacturers of—

White Lead, White Zinc, Paints, Oils, Colours, Varnishes, &c.

AUSTRALIAN OFFICE—
34 QUEEN STREET, MELBOURNE.

The Manufacturers supply their Pure Oxide Wholesale only, in quantities of not less than 2 cwt.

J. F. MACFARLAN & CO.

EDINBURGH AND LONDON.

ESTD. 1780.

MANUFACTURERS OF

MORPHIA and its SALTS **CODEIA and its SALTS**

ALL OTHER **OPIUM** PRODUCTS, AND
ALL ITS SYNTHETIC DERIVATIVES.

Capsicine, Gingerine, Chrysarobin, Emetine, Ergotin, Euonymin, Salicin, Strychnine, &c.

MACFARLAN'S
PURE CHLOROFORM

A product answering not only the tests of the British Pharmacopœia, but also the more stringent tests of the German Pharmacopœia for "Chloroform for Anæsthesia."

MACFARLAN'S
ANÆSTHETIC ETHER

(As used by the late Dr. THOMAS KEITH)

A product responding to all known tests for purity, and guaranteed to be unsurpassed in quality and anæsthetic efficiency by any other Ether made from whatever source.

MACFARLAN'S ANTISEPTIC DRESSINGS & APPLIANCES

Prepared from the Special Formulæ of the late LORD LISTER.

:: The NEW PURE LIQUORICE Juice ::

APOLLO

The makers of the well-known brands of Pure Block Juices "V.B." and "B.X.," who are the largest manufacturers of Liquorice in the World, beg to notify the Trade that they now manufacture a high-class **PURE STICK JUICE** which they have placed on the market under their registered brand ***"APOLLO."***

The same guarantee of absolute Purity, which for the past sixty years has been given with their Block Juices, equally applies to their new stick ***"APOLLO."***

Can be obtained of all the leading wholesale Houses.

PLATYPUS BRAND

OIL OF

EUCALYPTUS GLOBULUS

It is the **ONLY OIL** on the market upon which **POSITIVE RELIANCE** can be placed for absolute **CONSTANCY OF QUALITY**, and for that reason is well worth the extra price. Globulus Oil cannot be made at the same price as the common Australian Mallee Oil, as it produces less and the leaves are more difficult to obtain, but its medicinal value is much higher, and—**IT CONTAINS NO IRRITANTS.**

PRICES IN BULK.

1 lb.	2/6	per lb.
5 lb.	2/4	,,
10 lb.	2/3	,,
28 lb.	2/2	,,
56 lb.	2/-	,,

Packages free.

BOTTLED AND PACKED IN ELEGANT CARTONS.

On the P.A.T.A.	Per doz.	Minimum Retail Price.
2d. Sample, in box of 1 doz.	1/3	2d.
3d. Sample, in boxes of one doz. and 6 doz. outer	1/8	2½d.
4d. size in cartons and 1 doz. outer	2/4	3½d.
6d. size in cartons and 1 doz. outer	3/8	5½d.
1/- size in cartons and 1 doz. outer	7/4	11d.

THE TASMANIAN EUCALYPTUS OIL CO., Ltd.
Asylum Road, London, S.E.

YOU SHOULD STOCK

MERSEL'S FOOD

FOR INFANTS, INVALIDS, AND THE AGED.

MERSEL'S FOOD is a preparation of pure malted wheat. It is an ideal food for infants, invalids and the aged, being easily digested and retained by the weakest stomachs. Albert E. Bell, the well-known analyst, says:—"It is a complete food of high nutritive value." Put up in 1/– tins only.

KNO-SKA OINTMENT

(NO-SCAR)

FOR ECZEMA, HÆMORRHOIDS, ETC.

KNO-SKA is an antiseptic and emollient ointment of proved efficacy. It is indicated in eczema, hæmorrhoids, boils and skin troubles generally. The remarkable success which attends the use of KNO-SKA is making it increasingly popular all over the country. Put up in collapsible tubes, in two sizes only, at 1/1½ and 2/9.

A. J. WHITE, Ltd., 35 Farringdon Road, LONDON.

N.B.—Mother Seigel's Syrup in TABLET FORM is a line which is increasing in popularity DAILY.

EVANS

FOR

1914

DRUGS, GALENICALS,

CHEMICALS, etc., etc.

COUNTER ADJUNCTS,
customers' name and address.

DRUGGISTS' SUNDRIES,
best quality and prices.

PHOTOGRAPHIC REQUISITES, etc.

PATENT MEDICINES,

PROPRIETARY ARTICLES, etc.

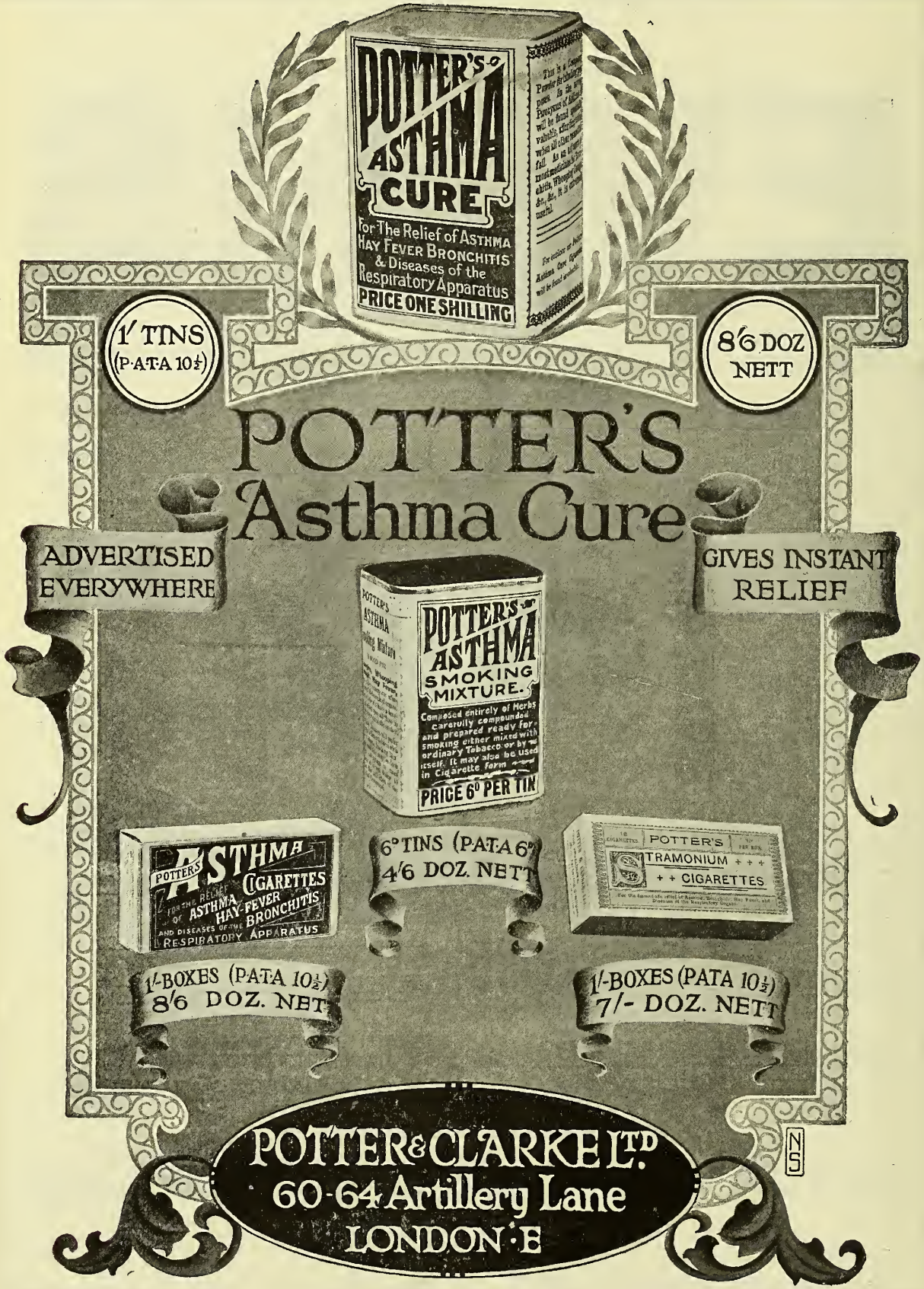
SHOP FIXTURES
only high quality supplied.

PRICE LISTS FOR EACH DEPARTMENT.

EVANS SONS LESCHER & WEBB, Ltd.

LIVERPOOL and LONDON.

Also NEW YORK, U.S.A.


POTTER'S ASTHMA CURE
For The Relief of Asthma Hay Fever Bronchitis & Diseases of the Respiratory Apparatus
PRICE ONE SHILLING
1/ TINS (P.A.T.A 10½)
8/6 DOZ NETT
POTTER'S Asthma Cure
ADVERTISED EVERYWHERE
GIVES INSTANT RELIEF
POTTER'S ASTHMA SMOKING MIXTURE.
Composed entirely of Herbs carefully compounded and prepared ready for smoking either mixed with ordinary Tobacco or by itself. It may also be used in Cigarette form
PRICE 6D PER TIN
POTTER'S ASTHMA CIGARETTES FOR THE RELIEF OF ASTHMA HAY-FEVER BRONCHITIS AND DISEASES OF THE RESPIRATORY APPARATUS
6D TINS (P.A.T.A 6D) 4/6 DOZ. NETT
POTTER'S TRAMONIUM + + + + + CIGARETTES
1/- BOXES (P.A.T.A 10½) 8/6 DOZ. NETT
1/- BOXES (PATA 10½) 7/- DOZ. NETT
POTTER & CLARKE LTD.
60-64 Artillery Lane
LONDON E
NS

PRICES ISSUED WEEKLY.

Original Packages can generally be supplied at the Current Prices quoted in the Trade Report of this Paper on Terms as below.

Acet. Ipecac, B.P., 7 lbs. @ 1/5 lb.
*Acid Scillæ, P.B., 7 lbs. @ 3d. lb.
*Acid Acet. Glacial., 99%, Carboys, 160 lbs. @ 4½d. lb.; 12 6-lb. bots. @ 7d. lb.; 6 lbs. @ 8d. lb.
„ Acetylo-Salicyl., 1 cwt. @ 2/- lb.; 56 lbs. @ 2/0½; 7 lbs. @ 2/4 lb.; 1 lb. @ 2/7 lb.
„ Salicyl. Pulv., 7 lbs. @ 1/1 lb.; pbys. pure, ¼ lb. @ 2/11 lb.
„ Tart., cryst. or pulv., B.P., 1885, 1 cwt. @ 1/0¾ lb.; 7 lbs. @ 1/1¾ lb.; parv. ½d. lb. extra.
Aloes Barb., English ground, 28 lbs. @ 84/- cwt.; 7 lbs. @ 10d. lb.
Ammon. Brom., P.B., 7 lbs. @ 2/3½ lb.
Ammon. Carb., lump. 3 cwt. @ 4d. lb.; 28 lbs. @ 5½d. lb.; 7 lbs. @ 5¾d. lb.; powder, ½d. lb. extra.
Amyli Pulv. 10 cwt. @ 12/- cwt.; 2½ cwt. @ 13/- cwt.; 1 cwt. @ 15/- cwt.
*Aqua Anetbi Conc. 1–40, 1 lb. @ 2/11 lb.
* „ Aurant. Trip., 53 lbs. for 17/6; 6 lbs. @ 7d. lb.
* „ Aurant, Conc., 1–40, 1 lb. @ 6/1 lb.
* „ Rosæ Trip., 53 lbs. for 22/6; 6 lbs. @ 7d. lb.
* „ Rosæ Conc. 1–40, 1 lb. @ 7/- lb.
* „ Samb. Trip., 53 lbs. for 23/6; 6 lbs. @ 8d. lb.
* „ Menth. Pip. Conc., 1–40, 1 lb. @ 3/- lb.

Bacc. Juniper, 28 lbs. @ 22/-; 7 lbs. @ 3d. lb.
Bismuth, P.B., Carb., 28 lbs. @ 8/8 lb.; 7 lbs. @ 8/10 lb.; 3 lbs. @ 9/1 lb.; 1 lb. @ 9/3 lb.; subnit. 1/- lb. less.

Ichthyol. Ammon., 3 lbs. @ 10/9 lb.; 1 lb. @ 11/- lb.; chemical equiv.: Ammon. Ichtbosulpbonas, 7 lbs. @ 5/- lb.; 1 lb. @ 5/6 lb.
*Inf. Aurant. Conc., 1 to 7, 6 lbs. @ 1/3 lb.
* „ Aurant. Comp. Conc., 1 to 7, 6 lbs. @ 1/3 lb.
* „ Bucbu Conc., 1 to 7, 6 lbs. @ 2/2 lb.
* „ Calumbæ Conc., 1 to 7, 6 lbs. @ 11d. lb.
* „ Caryopb. Conc., 1 to 7, 6 lbs. @ 1/-lb.
* „ Cascarilla Conc., 1 to 7, 6 lbs. @ 1/4 lb.
* „ Cincbonæ Acid, 1 to 7, 6 lbs. @ 1/7 lb.
* „ Gentianæ Co., 1 to 7, 6 lbs. @ 1/- lb.
* „ Quassiæ Conc., 1 to 7, 6 lbs. @ 9d. lb.
* „ Rbei Conc., 1 to 7, 6 lbs. @ 1/6 lb.
* „ Rosæ Acid. Conc., 1 to 7 6 lbs. @ 1/8 lb.
* „ Senegæ Conc., 1 to 7, 6 lbs. @ 2/4 lb.
„ Valerian Conc., 1 to 7, 6 lbs. @ 1/3 lb.
Insect Powder, Opt. Englisb grd., closed flowers, 28 lbs. @ 1/10 lb.; 7 lbs. @ 1/11 lb.; Englisb Ground, ½ closed flowers, 4d. lb. less; Foreign Ground, 1 cwt. @ 80/- cwt.; 28 lbs. @ 9d. lb.

Lin. Campb. P.B., 40 lbs. @ 11d. lb.; 9 lbs. @ 1/- lb.

Metbyl Acetanilide (Exalgin), 4 oz. @ 1/1 oz.; 1 oz. @ 1/5 oz.
Morpbinæ Acet. Hydrocblor. or Sulpb., Pulv. B.P., 25 oz. @ 8/1 oz.; 16 oz. @ 8/3 oz.; 8 oz. @ 8/6 oz.; 1 oz. @ 9/6 oz.; Pur. Præcip. Bimeconate or Tart. 1oz. @ 11/6 oz.

Naphthalene Candles or Balls, 1 cwt. @ 13/6 cwt.; 56 lbs. @ 16/- cwt.; 28 lbs. @ 18/- cwt.

Rad. Ipecac. Rio., 7 lbs. @ 8/-; 1 lb. @ 8/3.
Rad. Jalap., Englisb Ground, 28 lbs. @ 1/6 lb.; 7 lbs. @ 1/7 lb.
Rad. Rbei, E.I., Englisb Ground, 1 cwt. @ 1/4 lb.; 28 lbs. @ 1/6 lb.; 7 lbs. @ 1/7½ lb.

Saffron, Valentia, B.P., 7 lbs. @ 44/-; 1 lb. @ 45/- lb.; 1 oz. @ 3/3 oz.
Salicinum, B.P., 1 lb. @ 16/6 lb.
Salol, B.P., 7 lbs. @ 2/0½ lb.; 1 lb. @ 2/4 lb.
Sapo. Cast. Alb., 10 cwt. @ 28/6 cwt.; 2 cwt. @ 30/- cwt.; 7 lbs. @ 4d.; pulv., 1 cwt. @ 65/- cwt.; 56 lbs. @ 68/- cwt.; 7 lbs. @ 8d. lb.; Animal pulv., 1 cwt. @ 70/- cwt.; 56 lbs. @ 72/- cwt.; 7 lbs. @ 9d. lb.
Soda Cit., B.P., 3 lbs. @ 2/8½ lb.
Soda Salicyl Pulv., 7 lbs. @ 1/5 lb.; pbys. pur. 28 lbs. @ 2/1 lb.; 1 lb. @ 2/4 lb.
Sodii Bromid. P.B., 7 lbs. @ 2/1½ lb.
Strycbnina cryst., B.P., 25 ozs. @ 1/8½ oz.; 1 oz. @ 2/3 oz.; Hydrocblor. and Sulpbate, 2d. oz. less.
*Syr. Aurant. P.B., 7 lbs. @ 9½d. lb.
* „ Easton, B.P., 7 lbs. @ 1/0½ lb.
* „ Ferri Iodid. P.B., 7 lbs. @ 1/5 lb.
* „ Ferri Pbospb. Co., 7 lbs. @ 5½d. lb.
* „ Hypophospb. Co. B.P.C., 7 lb. @ 9½d. lb.
* „ Pruni Virg. B.P. 8 lbs. @ 7½d. lb.
* „ Rbamni, 7 lbs. @ 10½d. lb.
* „ Rbei, P.B., 7 lbs. @ 8d. lb.
* „ Scillæ, P.B. 7 lbs. @ 5d. lb.
* „ Sennæ, P.B., 7 lbs. @ 8½d. lb.
* „ Tolut. P.B., 7 lbs. @ 8½d. lb.

Our New Detailed Price List for 1914 will be ready next week.

Calcii Carb. præcip. 5 cwt. @ 13/- cwt.; 1 cwt. @ 16/- cwt.; 28 lbs. @ 21/- cwt.
Campbor, Englisb Flowers, "not artificial," 5 lbs. @ 2/- lb.; ⅛ or ¼ oz. 7 lbs. @ 2/- lb.
Cetaceum, No. 1, fine wbite, 64 lbs. @ 11½d. lb.; 7 lbs. @ 1/1 lb.; powder, 7 lbs. @ 1/6 lb.
Cocaine Hydrocblor., B.P., 25 ozs. @ 5/- oz.; 4 ozs. @ 5 7 oz.; 1 oz. @ 6/3 oz.
Cream Tartar, 98% powder, 1 cwt. @ 94/6 cwt.; 7 lbs. @ 11d. lb.
Cubebæ, English Ground, 7 lbs. @ 1/11 lb.

Emulsio Ol. Morrbuæ, 5 lbs. @ 11d. lb.
*Ess. Pear (artificial), Jargonelle, 5 lbs. @ 2/- lb.; Bergamot, 2/6 lb.
*Ess. Pineapple, 5 lbs. @ 3/4 lb. [lb.
* „ Raspberry, 5 lbs. @ 2/2 lb.; 1 lb. @ 2/6
* „ Vanilla Beans, 5 lb. @ 4/4 lb.; 1 lb. @ 4/7 lb.
Ext. Cascara Sag. Liq., B.P., 1 cwt. @ 1/0½ lb.; 10 lbs. @ 1/2 lb.
*Ext. Ergot. Liq. P.B., 5 lbs. @ 4/8 lb.; 1 lb. @ 5/2 lb.

Ferri Ammon. Cit., P.B., 28 lbs. @ 2/2 lb.; 7 lbs. @ 2/3 lb.
Ferri et Quininæ Cit. P.B., 500 ozs. @ 5¾d. oz.; 100 ozs. @ 6d. oz.; 25 ozs. @ 6¾d. oz.

Glycerin. Opt., DD., 1.260 P.B., 1 cwt. @ 100/- cwt.: 56 lbs. @ 101/- cwt.; 12 lbs. @ 1/1 lb.

Hydrargyrum, P.B., 75-lb. bottle @ £7/7/6; 10 lbs. @ 2/3 lb.; 1 lb. @ 2/8 lb.; Ammon. 28 lbs. @ 3/2 lb.; c. Creta, 28 lbs. @ 1/5 lb.; Iodid. Rub., 28 lbs. @ 11/3 lb.; Oxid. Rub., 28 lbs. @ 3/2 lb.; Percblor., Lump, 28 lbs. @ 2/6 lb.; Subcblor., 28 lbs. @ 2/11 lb.: Sulpb. c. Sulpb., 28 lbs. @ 2/9 lb.; 7-lb. quantities, 1d. lb. extra; 3-lb. quantities, 2d. lb. extra; 1-lb. quantities, 3d. lb. extra.

Ol. Caryoph. Ang., B.P., 9 lbs. @ 4/3 lb.; 4½ lbs. @ 4/5 lb.
Ol. Juniperi Bacc., B.P., 4½ lbs. @ 3/6 lb.; 1 lb. @ 3/10 lb.; Ligne Exot., 1 cwt. @ 1/2 lb.; 28 lbs. @ 1/4 lb.; 9 lbs. @ 1/5 lb.
Ol. Olivæ, P.B. good yellow, guaranteed pure, 45 gall. barrels @ 4/10 gall.; 2 gall. tins @ 5/9 gall.
Ol. Origani Rub. Com. 28 lbs. @ 1/10 lb.; 9 lbs. @ 2/- lb.
Opium Turc. B.P., 14 lbs. @ 16/8 lb.; 3 lb. @ 17/8 lb.; 1 lb. @ 18/2 lb.; powder, 6d. lb. extra.

Papain 1–80, 1 lb. @ 16/6 lb.; 1 oz. @ 1/4 oz.
Paraffinum Durum, B.P., 2 cwt. @ 3d lb.; 1 cwt. @ 3½d. lb.; 56 lbs. @ 3¾d. lb.; 7 lbs. @ 4¾d. lb.; Molle Flav., B.P., 3½ cwt. @ 20/- cwt.; 1 cwt. @ 30/6 cwt.; 28 lbs. @ 4d. lb.; 7 lbs. @ 4½d. lb.; Alb. B.P., 3½ cwt. @ 58/- cwt.; 28 lbs. @ 7½d. lb.
Paraldehyde, B.P., 7 lbs. @ 2/- lb.; 1 lb. @ 2/3 lb.
Pepsin, B.P., 10 lbs. @ 9/4 lb.; 1 lb. @ 10/- lb.
Pbenacetin, P.B., pulv., 1 cwt. @ 2/11 lb.; 7 lbs. @ 3/1 lb.; 1 lb. @ 3/4 lb.
Pbenazone, P.B., 7 lbs. @ 6/11 lb.; 1 lb. @ 7/6 lb.
Phenolphtbalein, 7 lbs. @ 5/6 lb.; 1 lb. @ 6/- lb.
Pix. Burgund, Druggists', 1¼ cwt. @ 25/6 cwt.; 7 lbs. @ 4½d. lb.
Potas. Acetas. Gran. P.B., 28 lbs. @ 1/1 lb.; 7 lbs. @ 1/2 lb.
Potass. Brom. P.B., 1 cwt. @ 1/7 lb.; 28 lbs. @ 1/7½ lb.; 7 lbs. @ 1/9 lb.
Potass. Cit., B.P., 7 lbs. @ 2/3 lb.
Potass. Permang., Cryst., 1 cwt. @ 40/- cwt.; 7 lbs. @ 5d. lb.; large cryst., 7 lbs. @ 6½d. lb.

Tbymol, 7 lbs. @ 6/8 lb.; 1 lb. @ 7/2 lb.
Tinct. Aurantii Recens, B P., 5 lbs. @ 3/6 lb.; bond, 8¼d. Aquos, 10d. lb.
*Tinct. Belladon., B.P., 5 lbs. @ 2/11 lb.; bond, 6½d. Aquos, 1/- lb.
*Tinct. Benzoini Comp., P.B., 5 lbs. @ 3/6 lb.; bond, 9d.
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*Tinct. Cantbaridis, P.B., 5 lbs. @ 3/9 lb.; bond, 6d. lb.
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*Tinct. Card. Comp., P.B., 5 lbs. @ 2/8 lb. bond, 7½d. lb. Aquos, 1/- lb.
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*Tinct. Cincbon. Comp., B.P., 5 lbs. @ 3/5 lb.; bond, 1/0½ lb. Aquos, 1/4 lb.
*Tinct. Cincbon. Rub., P.B., 5 lbs. @ 3/- lb.; bond, 10d. lb. Aquos, 1/2 lb.
*Tinct. Digitalis, B.P., 5 lbs. @ 2/8 lb.; bond, 6½d. lb. Aquos, 1/- lb.
*Tinct. Gelsem. P.B., 5 lbs. @ 2/10 lb.; bond, 6½d. lb. Aquos, 1/3 lb.
*Tinct. Gentianæ Comp., B.P., 5 lbs. @ 1/11½ lb.; bond, 7½d. lb. Aquos, 1/- lb.
*Tinct. Hyoscyami, B.P., 5 lbs. @ 2/5 lb.; bond, 7½d. lb. Aquos, 1/5 lb.
*Tinct. Iodi. B.P., 5 lbs. @ 4/4 lb.; bond, 1/8 lb.; decolor 5 lbs. @ 4/8 lb.; bond, 1/5½.
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*Minimum quantity at these prices: Home Trade, 3 Winchester Quarts assorted; Export, 12 Winchester Quarts assorted.

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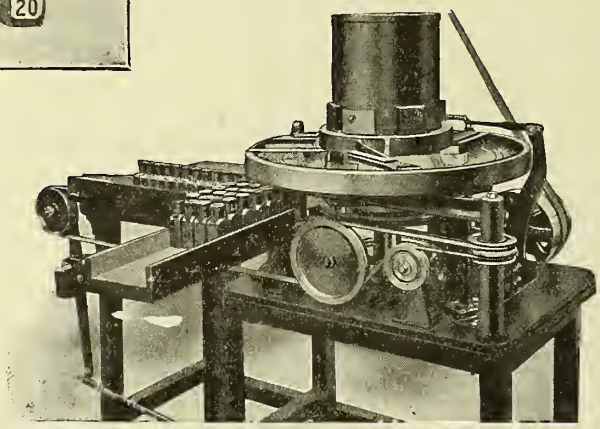

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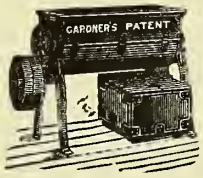

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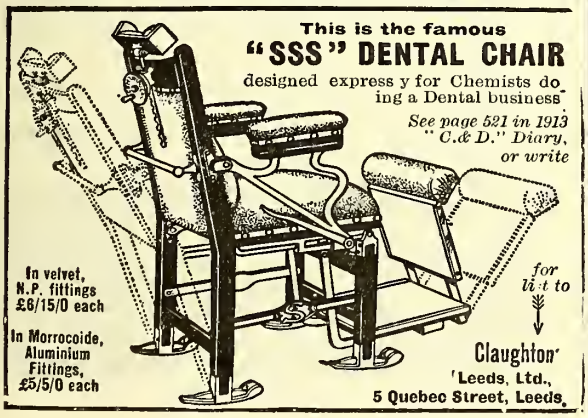

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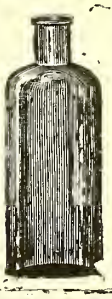

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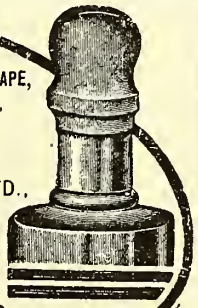

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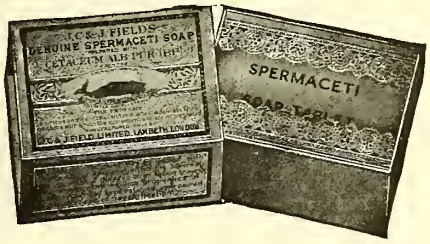

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- Licorice Juice ("Alcazar" Brand) in Sticks 4's, 5's, 8's, and 16's to the lb.
- Menthol Snuff
- Menthol & Eucalyptus Snuff
- Tube Goods of all kinds, including—
- Toilet Creams,
- Jellies, Tooth Pastes,
- Chillie Paste,
- Camphor Cream, &c.
- Brilliantine
- Lime Cream
- Toilet Paraffin
- Tooth Powder, &c.

TABLETS & PILLS.

We are now in a position to save you money on these also.

SHIRLEY BROTHERS, LIMITED,
Whitecross Works, Rockingham St., LONDON, S.E.

NOTICE TO CHEMISTS AND DRUGGISTS

We are doing our part of the contract and we want you to do **yours.** We are advertising extensively the celebrated French Rheumatism Cure

EAUZATE

And we want **you** to stock it, so that when the public ask for the same, you will not reply, using the old stock phrase, "We can get it for you," thus running a risk of losing a sale for **you** and a sale for **us**, but produce **Eauzate** from your shelf immediately.

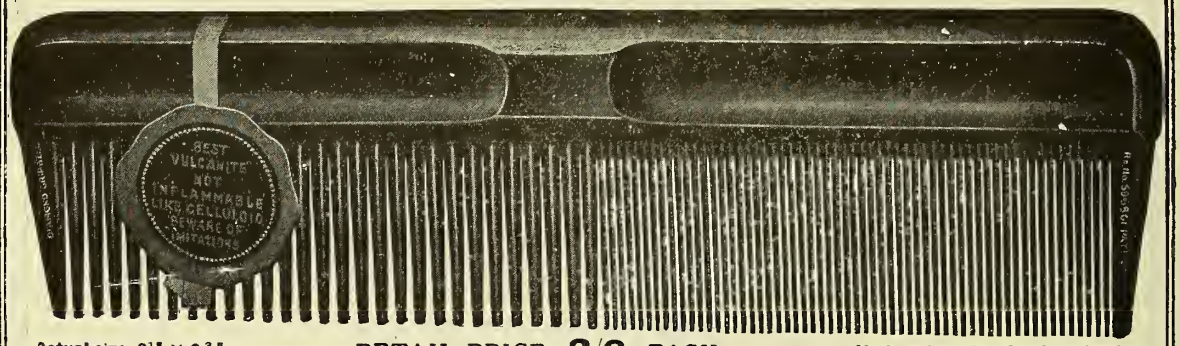
2/9 P.A.T.A.

All wholesalers stocked. Write us if unable to obtain.

COMPAGNIE JUVENILEAU,
97 Cannon Street, London, E.C.

Traun's "DIAMOND" Gripwell Comb

PATENT, DESIGN REGD.



Actual size, $8\frac{1}{4}'' \times 2\frac{3}{16}''$. RETAIL PRICE **3/6** EACH. Made in Dressing Comb and Rake.

Specially designed to make the use of the Comb a **Perfect Luxury and Comfort.**
All teeth carefully grailed and highly polished. Made of **Finest Para Vulcanite,** which does not split like Horn, but is **Elastic, Strong and Springy,** and is the **Ideal Material for Combs.**

Manufactured by the Makers of the

CELEBRATED GRIPWELL COMBS,

which are supplied in a variety of shapes and sizes

TO RETAIL FROM 1/- UPWARDS.

STYLISH SHOWCARDS SUPPLIED.

SOLD BY ALL THE USUAL WHOLESALERS.

GUARANTEED UNBREAKABLE.

A great Modern Asset is Up-to-Dateness.

JEWSBURY & BROWN'S

ORIENTAL

TOOTH POWDER,

6d. and 1/-

in the New Container,

is the Last Word in Dental Science.

MAY WE SEND YOU A SAMPLE?

JEWSBURY & BROWN, Ardwick Green, MANCHESTER.

5

OVER 100% PROFIT
ENSURED & PROTECTED (P.A.T.A.)
for sellers of

Laurence's Hair Dyes

One solution, nine shades.

A first-class article with an excellent demand, created entirely on its own merits, and carrying a first-class profit.

Size.	Minimum retail.	Minimum wholesale.	
1/-	1/-	7/6	per doz. less 5% discount
1/6	1/6	9/-	
2/6	2/3	15/-	
3/6	3/3	21/-	

SPECIAL BONUS.

Buyers of 3 doz. bottles receive 3 bottles gratis (may be assorted and any size).
Do. 6 doz. do. 8 bottles gratis.
Do. 12 doz. do. 18 bottles gratis.
Equivalent in the case of the size in most general demand, viz. 1/6 size to 4/6, 12/- and 27/- respectively.

SOLE PROPRIETORS—

C. R. HARKER, STAGG & MORGAN, LTD.

DEVON WHARF,

Emmott Street, Mile End, London, E.

Seven Grands Prix in 1910 and 1911
at Turin (2), Brussels (2), London (2,) and Beunos Aires.

93 AWARDS

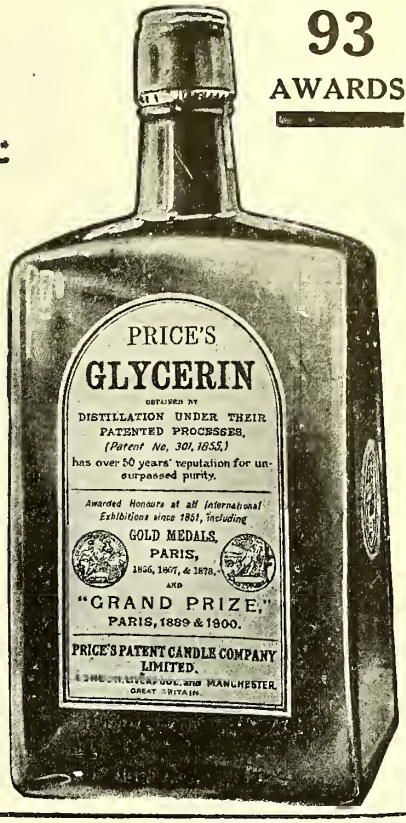
Guaranteed Chemically Pure.

Since its introduction in 1855

PRICE'S GLYCERIN

has maintained an unrivalled position, and can be confidently recommended on account of its reputation for unsurpassed purity and for the uniformity of its quality.

PRICE'S PATENT CANDLE COMPANY LIMITED, London, Liverpool, Manchester.



"A Bottle of Anzora, Please!"

If you have not already had this demand you shortly will have, for "Anzora Cream" is being extensively advertised both in the Press and on the Railways—every day thousands of prospective buyers see these advertisements and are influenced to buy.

Be prepared to meet these buyers. Stock "Anzora" now, it will mean extra and remunerative business for you, for "Anzora" is on the P.A.T.A. and ensures

80 % Protected Profit for the Retailer

when purchased in lots of 3 doz. and upwards.

Trade Terms:

Per doz.	Retailed at
11/6	18/-
19/6	30/-

We give 10 % discount on orders of 3 dozen or more.

ORDER A SUPPLY TO-DAY from your usual Wholesaler and send a card to us for Showcards.

THE ANZORA PERFUMERY CO.
32/34 Willesden Lane, London, N.W.

DIRECT IMPORT FROM JAPAN

WE SELL TO ARRIVE.

HAIR, NAIL AND TOOTH BRUSHES. ALSO ALL KINDS OF ANTIMONY METAL BOXES SUITABLE FOR JEWEL CASES AND FOR TOILET PURPOSES.

H. D. HARDIE & CO., 176 Ingram Street, GLASGOW.

A New and Profitable Line.

CALVERT'S
CARBOLISED
Shaving Soap

Gives a lather most effective for its purpose—to secure a comfortable and hygienic shave. Readily rinsed from a safety razor.

Retail at face value 10d. a stick.

F. C. CALVERT & CO., Manchester, Eng.

Manufacturers of Calvert's Carbolic Tooth Powder, Soaps, Disinfectants, etc.

Send to ELEY for these!

ELEY BROS. Ltd., possess facilities second to none for the manufacture of Silver- and Nickel-Plated Brass Boxes for Shaving Sticks and Aluminium Boxes for Dentifrice, Soaps, etc., also Tops, Caps, and Dredgers for Toilet and other Powders.

SOLID DRAWN TUBES, SMALL BRASS AND ALUMINIUM STAMPINGS.

ELEY BROS. Ltd., are large manufacturers of this class of goods to the wholesale trade. Prompt attention given to all inquiries, prices on application.

Address all enquiries for these goods to Dept. 21.

ELEY BROTHERS LIMITED,
254 GRAY'S INN ROAD, LONDON, W.C.

BIRMINGHAM: 29 and 30 Whittall Street.
GLASGOW: 82 Mitchell Street.
LIEGE (Belgium): 107 Rue Louvrex.
FLORENCE: 4 and 6 Via Cavour.

Canadian Branch:—
ELEY BROS. (CANADA) LTD.,
North Transcona, Man.

ROBINSON & SONS, LTD., CHESTERFIELD.

MANUFACTURERS AND PRINTERS OF ALL KINDS OF **CARDBOARD BOXES.**

WE WANT TO HEAR FROM

The man who believes that the Pharmacist should be something better than a distributor of advertised goods.

We want to hear from

The man who is tired of working 14 hours a day on a ten per cent. basis.

We want to hear from

The man who is dissatisfied with the present condition of Pharmacy.

We want to hear from

The man who has determined to make 1914 his best business year.

We can help

The Pharmacist who is willing to help himself.

We can help

The Manufacturer who believes the Pharmacist's services are of value to him.

We can prove

That the Ucal System makes it possible to do business in a more profitable way on less capital than any other system.

We want to see Pharmacy yield a fair return to every Pharmacist who will give conscientious service to the public.

Investigate the Ucal plan.

Write for particulars to

UCAL WORKS, CHELTENHAM.

HOT WATER BOTTLES

THE "EMPIRE" BRAND

Made in Two Weights, but One Quality only—the Best.

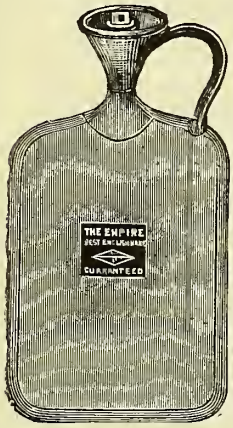


FIG. 957.—**Side Handle.**

Guaranteed for 2 years.

Top or side handle — SIZES	6×8	6×10	6×12	8×10	8×12	8×14	10×12	10×14	12×14
Heavy weight ... ... each	2 10	3 2	3 6	3 9	4 2	4 6	4 9	5 0	6 0
Light ,, ... ,,	2 8	2 10	3 2	3 4	3 8	4 2	4 5	4 8	5 6
Covers, scarlet or grey plush, ,,	0 8	0 8	0 10	0 10	0 11	0 11	0 11	1 0	1 2
,, ,, ,, felt ,,	0 5	0 5	0 6	0 6	0 7	0 7	0 8	0 10	1 0

N.B.—The metal collar in both heavy and light Bottles is **vulcanized into the rubber neck,** thus making it practically one solid piece and doing away with all possibility of leakage.

For orders of **two dozen** bottles assorted we will put tablet with customer's name on free of charge. Each Bottle in a strong paper bag with directions for using.

5% discount allowed for prompt cash off above prices. Carriage paid on Orders of **£2** and upwards to any town in the United Kingdom.

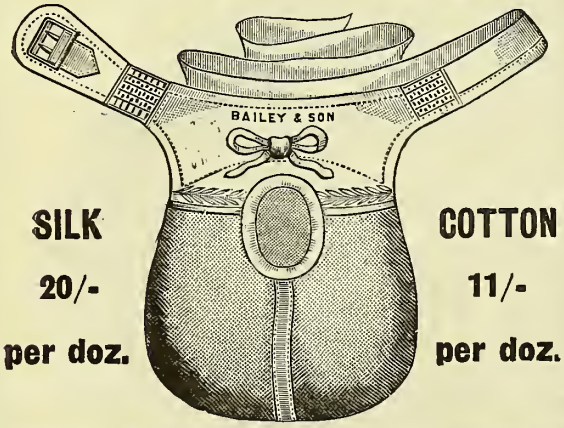
We are the right House for Bandages, Catheters, Enemas, Elastic Hosiery, Hot Water Bottles, Ice Bags, Injection Syringes, Pessaries, Sponge Bags, Splints, Trusses, Water Beds, Water and Air Cushions, Waterproof Sheeting, and every description of Rubber Goods.

ILLUSTRATED CATALOGUE, POST FREE. OUR GOODS ARE RIGHT. MONEY BACK IF NOT SATISFIED.

BURGE, WARREN & RIDGLEY, LTD.,

91 & 92 GREAT SAFFRON HILL, LONDON, E.C.

BAILEY'S "A.B.C." SUSPENSORIES.



SILK 20/- per doz.

COTTON 11/- per doz.

Assorted—A, small; B, medium; C, large bags.

W. H. BAILEY & SON,

38 OXFORD STREET, LONDON, W. [3]

LESLIES, LTD.

Manufacturers of Plasters of every description for Home or Export.

SURGICAL PLASTERS

Holland Strapping, all widths,
Rubber Adhesive Plaster on Spools
,, Zinc Oxide ,, ,, ,,

MEDICAL PLASTERS

Lead or Rubber Base.
Plain or Porous.
Mustard Leaves. Court Plasters.

Sole Agents in Great Britain & Colonies for
Geneva Crepe Bandages.
TWO QUALITIES. 11 different widths.

LESLIES, LTD.,

18 Eldon Street, LONDON, E.C.

By Royal Warrant to H.M. The King.

By Royal Warrant to H.M. The King.

Only ONE Address.

DAY & SONS, CREWE. LTD. (CREWE)

ESTABLISHED 1840.

HORSE, CATTLE, SHEEP & DOG MEDICINES.

Only ONE Address.

LARGEST SALE IN THE WORLD.

DAYS' BLACK DRINK

Cures Colic or Gripes in Horses or Cattle, Scour and Weakness in all Young Stock, Blown Cattle and Sheep, Debility, Chills, and Low Condition in all Stock.

Price 1/8 per bottle.

DAYS' HUSKOLEIN.

Almost infallible for Tape Worms in Lambs and other Animals; for Husk or Hoose in Calves, Lambs, &c. A speciality for Worms in Horses and Colts.

6/6 per bottle.

DAYS' "ZOMO-SAL."

For Blood Disorders, Humours, General Weakness, Surfeits, Indigestion, Sterility, &c., in Horses and Beasts. Promotes Growth of Bone. Makes animals "fit" for Show or Sale.

In Canisters at 7/6, 20/-, and 40/-

DAYS' RED DRINK

OR COW DRENCH.

For Costiveness, Loss of Cud, Indigestion, Garget, Colds, Fever, Hidebound, &c., in Cattle. Prepares Cows for Calving, Prevents Milk Fever, and cures Bad Cleansing.

12/- per doz. packets.

The Ewe Drench for Ewes, 3/6 per doz.

DAYS' OILS

(THE PURIFIED DRIFFIELD OILS)

Heal all Wounds in Horses, Cattle, and Sheep, Sore Teats and Swollen Udders in Cows and Ewes. For Anointing in difficult Lambing or Calving.

2/6 and 6/- per bottle.

DAYS' WHITE OILS.

A Safe Embrocation for Sprains, Swellings, Windgalls, Sprung Sinews, Rheumatism, Sore Throat, Weak Joints, &c.

2/6 and 6/- per bottle.

DAY & SONS' "ORIGINAL" MEDICINE CHESTS

Price £1 4s., £2 4s., £5, and £10 10s.; Carriage Paid.

Arranged for Horses, Cattle and Sheep; Horses only; or to suit any class of stock.

WHEN ORDERING PLEASE STATE REQUIREMENTS.

The Chest Illustrated is similar to that at £5 and £2 4s.

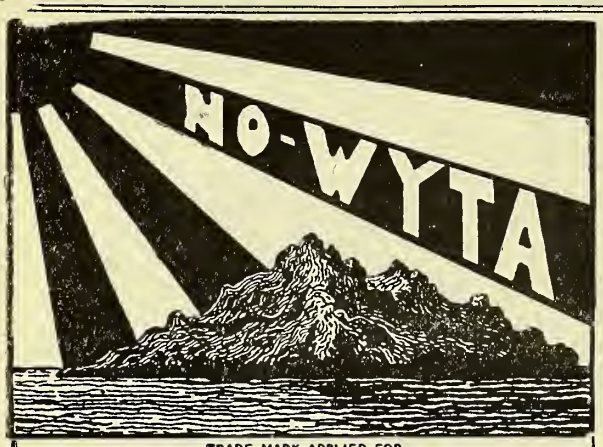
Great Specialities.

ONLY GENUINE FROM

DAY & SONS, CREWE, LTD.,

CREWE, ENGLAND.

LIBERAL TERMS FOR FOREIGN BUYERS.



TRADE MARK APPLIED FOR.

St. VINCENT ARROWROOT

GUARANTEED ABSOLUTELY PURE
and of unexceptionable quality

ITS PURITY SPECIALLY FITS IT FOR INVALIDS
Vide Public Analyst's report, printed on each packet

Protected Retail Price, **6d.** and **1/-** net, in ½-lb. and 1 lb. packets.
Trade Price, **4/3** and **8/6** per doz., Carriage Paid.

Obtainable Wholesale from
GEO. HARKER & CO., LTD.
101/3 Upper Thames Street, E.C.

Lofthouse & Saltmer, Ltd.

—— Wholesale and Export Drug ——
Merchants, Manufacturing Chemists,
HULL,

invite the attention of the Trade to the following well-tried preparations, which carry a big P.A.T.A. retail protected profit, and are well-known and valued by the public in many parts of the country.

	PROTECTED RETAIL PRICE	DOZ. NET.
Losall's Asthma Remedy. Very effective Remedy for Asthma, Bronchitis, &c.	10½d.	7/6
Losall's Salt. The popular Remedy for Eczema, Gout, Rheumatism, and Biliousness. Well advertised.	6d.	3/6
	1/-	7/-
	1/6	10/6
Losall's Compound Sulphur Soap. A valuable emollient medicated Skin Soap, especially for use in Eczema cases.	1/-	8/-
Losall's BALL-ROOM Floor Polish. Produces a smooth surface beneath the dancers' feet. No dust.	1/-	7/-
Malted Food. Usual 1/- size, lever lid tins, name and address free on 3 dozen. Special design label with name and address on gross orders, if desired.	—	4/6

London Agents: F. NEWBERY & SONS, Ltd.

Do You Stock

VISCM
(Seed of Strength)

If not, you are losing sales.
We are commencing our Winter campaign of advertising.
Physicians are ordering it.
The public are enquiring for it.

WE GIVE YOU 75% PROFIT ON YOUR OUTLAY.

Write for our Bonus Window Display Scheme. It will pay you.

ST. IVEL, LTD., YEOVIL, SOMERSET.
London Offices: 33 Park Road, Battersea, S.W., to where all orders should be sent.

WELCH'S *Non-Alcoholic COMMUNION WINES.*

Adopted by a great number of Churches & Chapels. Used by the Rev. Chas. Spurgeon and other notable ministers.

In Bottles to retail at 2/- and 1/6.

WELCH'S

NON-ALCOHOLIC
INVALID WINE

or concentrated Grape Juice, is the very cream of the most luscious grapes grown. Retail in PINT BOTTLES, 2/6

Welch Grape Juice Co., Ltd., 61 FARRINGDON ST., (Desk C). LONDON, E.C.

NO LICENCE REQUIRED.

THE JOHN DALE MFG. COY.,

MANUFACTURERS
OF
Collapsible Tubes, Scent Sprinklers
Decorated Tin Boxes & Canisters.

NEW SOUTHGATE, LONDON, N.

NATURAL
Mineral Waters

¶ We are Agents for all the leading Natural Mineral Waters, importing them regularly throughout the Season.

¶ Should you be asked for a Water with which you are not conversant, please apply to us, as we may have it in stock; or we could procure at short notice.

¶ Chemists should write for our special list of net prices. Goods delivered direct to Clients' own Customers if desired.

¶ Show-cards, Show-Bottles, Pamphlets, Dummies, &c., forwarded on application.

INGRAM & ROYLE, Ltd.

IMPORTERS, EXPORTERS AND DEALERS IN ALL

Natural Mineral Waters, Salts and Pastilles.

Telegraphic Addresses:

"INGRAM-ROYLE LONDON." Telephone: Hop. 4343 (2 lines).
"SPRUDEL BRISTOL." Telephone: 1113.
"CELESTINS LIVERPOOL." Telephone: Bank 4528.

Bangor Wharf, 45 Belvedere Road, London, S.E.

LIVERPOOL: 19 South John Street. BRISTOL: Bath Bridge.

No. 1.

SMITH'S POTASSIUM COMPOUND.

The only modern up-to-date remedy for

RHEUMATISM & GOUT

(In tablet form, packed in screw-capped vials).

Two sizes { 40 Tablets, retail 1/1½
100 ,, ,, 2/9

RETAILER'S PROFIT, 40% ON COST.

From all Wholesalers, or direct from—

THE LONDON PROPRIETARY CO.

3 St. Andrew's Street, London, E.C.

"SANADONES."

The Guaranteed Remedy for

RHEUMATISM, GOUT, SCIATICA AND LUMBAGO.

Retail Price 2s. 9d. per box. *(One Size only.)*

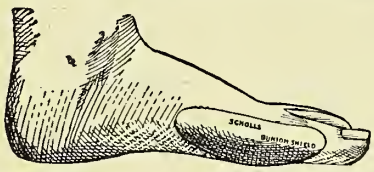
Stocked by all Wholesalers.

Sole Proprietors—

SANALAK, LTD.,

15-19 Vine Street, Clerkenwell, London, E.C.

Telegrams: "SANALAK LONDON." Telephone: Central 13807.



SCHOLL'S **BUNION REDUCER,** made of pure Para Gum Rubber, gives instant relief by keeping the pressure of the boot from the affected joint. Fits closely to the bunion, shuts out all air, retains the moisture, thus arresting the growth. Can be worn in any boots unnoticed; does not shift or bulge. Made in three sizes, small, medium, and large and for right or left foot. Price 15/- per dozen. Send for free booklet, "Scientific Correction for Ailments of the Feet."

THE SCHOLL MANUFACTURING CO., Ltd.

Largest Makers of Foot Appliances in the World,

1, 2, 3 and 4 GILTSPUR STREET, LONDON, E.C.

Wholesale **ALL BRITISH** Only.

CRÊPE BANDAGES.

In various widths and qualities. Send for Samples, with Prices, and compare with any foreign production, to The Norwich Crepe Co. (1856), Ltd., St. Augustines, Norwich, who are acknowledged to be the only manufacturers in Great Britain.

INDEX and BUYERS' GUIDE

See pages 5 to 9.

The Original and only Genuine

Allcock's

POROUS **PLASTERS**

A REMEDY OF 60 YEARS' STANDING.

Allcock's Plasters
Allcock's Corn and Bunion Plasters
Brandreth's Pills
} *The Three Reliables.*

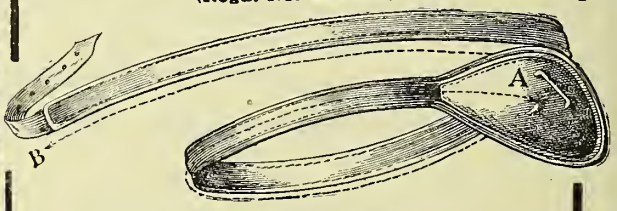
A HANDSOME SHOWCARD will be sent free of cost and post paid on application.

ALLCOCK . . MANUFACTURING COMPANY . .
22 Hamilton Sq., Birkenhead.

"Sold all round the World."

"HERNICURA" Trusses

(Regd. No. 254807).



REASONS WHY

you should stock "HERNICURA" Trusses.

THERE ARE NO OTHER TRUSSES ON THE MARKET SO MARVELLOUS IN VALUE, SO EASY TO FIT, AND THAT GIVE SUCH ENTIRE SATISFACTION TO YOUR CUSTOMER.

WRITE FOR PRICE LIST.

Specimens submitted, on appro., post free.

JOHN MORGAN DAVIS & SONS,

Truss and Surgical Appliance Makers,

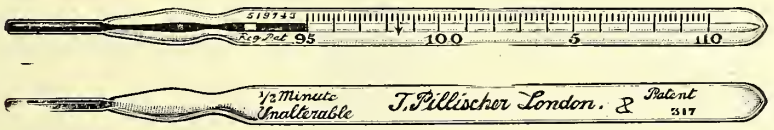
278 BISHOPSGATE, LONDON, E.C.

ESTABLISHED 1843.

J. PILLISCHER,

88 NEW BOND ST., LONDON, W.

Manufacturer of scientific Instruments and SOLE Manufacturer of the "Inalterable" Maximal Thermometer.



TRADE MARK

RECENT AWARDS AT INTERNATIONAL EXHIBITIONS

MONTEVIDEO, 1907. LONDON, 1908. NANCY, 1909. BRUSSELS, 1910. BUENOS AIRES, 1910. ROUBAIX, 1911.
TUNIS, 1911. TURIN, 1911. LA ROCHELLE, 1911. PARIS, 1912. DUNKIRK, 1912. ROME, 1912. BRIVE, 1912. BARCELONA 1912.

HORS CONCOURS, GAND, 1913.

12 GOLD MEDALS—14 GRANDS PRIX.

HORS CONCOURS—MEMBER OF THE JURY.

PRICE LIST ON APPLICATION.

KAY BROTHERS, Ltd.

STOCKPORT,

Manufacturing Chemists.

BIRDLIMES and **FLY GUMS** for all climates.

FLYPAPERS, Non-Poisonous. "Big Bat" & "Falcon" Brands.

FLYCATCHERS, TAPES & BANDS. Spiral Wire, "Vampire." Cavity Tape, "Flysac." ,, ,, "Scorpion." ,, ,, "Dragon." Roll Band, "Viper." (2 in. and 4 in. wide.)

CEMENTS. "COAGULINE" Transparent Cement for broken articles, 6d. bots. "TENASITINE." A Liquid Cement in Tubes, 1d., 2d., 3d. & 6d. "KLINX." Hydraulic Cement (heat-proof), 6d. tins. "CUE CEMENT," 6d. & 1/-.

SANITARY FLUID. For disinfecting and deodorising. In Tins or Casks.

"PULVICIDE" (Patented). A Dustlaying Compound. Agents wanted for its introduction to Municipalities.

"LINSEED COMPOUND." (P.A.T.A.) A Cough Mixture of over 40 years' proven excellence.

Vincent Wood's

GOLD MEDAL
BRITISH MADE
HOT-WATER BOTTLES.
QUALITY GUARANTEED.

Also Special New
LAMB'S-WOOL AND PLUSH COVERS AND BAGS, LUNG PROTECTORS, WINTER BODY BELTS, TRUSSES, &c.

SEND FOR LIST, &c.
4 Albion Place, Blackfriars Bridge, London, S.E.

Catarrh

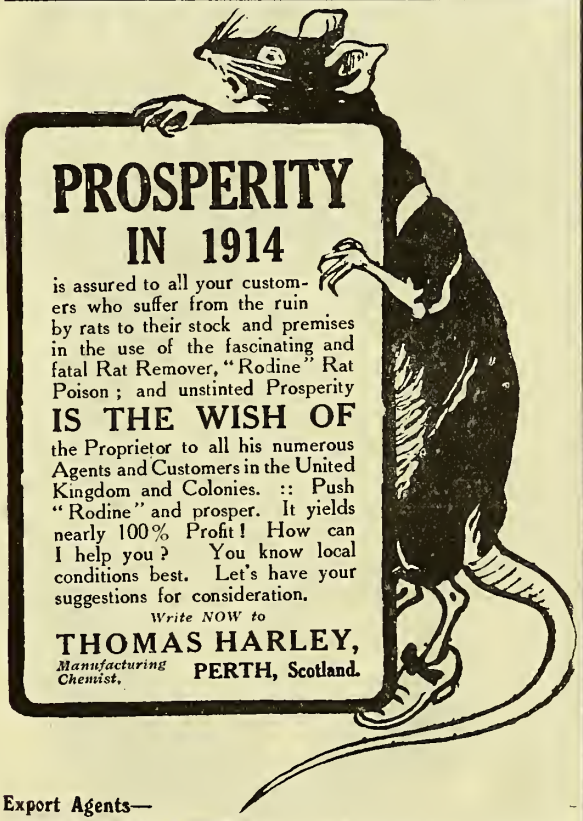
of the NOSE & THROAT.

NAZALIA, a pleasant and highly effective remedy for Catarrh, is advertised in all our prominent newspapers, and a large demand has resulted from the distribution of thousands of free samples.

The pamphlet sent with samples contains hints on the care of the health—recommendations are given for many things Chemists keep regularly, with the view of helping sales of their own goods as well.

Protected prices. 1/1 and 2/6. From wholesale houses. Showcards, samples and pamphlets free. The goods sell, or I will take them back at any time.

Address H. C. PAYNE, M.P.S., 78 Essex Road, London, N.



PROSPERITY IN 1914

is assured to all your customers who suffer from the ruin by rats to their stock and premises in the use of the fascinating and fatal Rat Remover, "Rodine" Rat Poison; and unstinted Prosperity

IS THE WISH OF

the Proprietor to all his numerous Agents and Customers in the United Kingdom and Colonies. :: Push "Rodine" and prosper. It yields nearly 100% Profit! How can I help you? You know local conditions best. Let's have your suggestions for consideration.

Write NOW to

THOMAS HARLEY,
Manufacturing Chemist, **PERTH, Scotland.**

Export Agents—
TOZER, KEMSLEY & FISHER, Ltd., 84 Fenchurch St., London, E.C.

BOTTLES:

:: YORKSHIRE MAKE ::

DISPENSING as illustrated, Plain or Graduated.

1½ & 2 oz.	3 & 4 oz.	6 & 8 oz.	10 oz.	12 oz.
7/9	8/-	9/-	13/-	14/6

16 oz.	20 oz.
19/6	21/- per gross.

GREEN PANELLED (three sides)
1/- per gross extra to above prices up to 8 oz., 2/- extra beyond.

GREEN PANELLED HEAVY (for Cough Mixtures)
2½ oz. **8/9**; 5 oz. **10/-** per gross.

POISON. Oval Ribbed, Pale Green (for Ammonia)

3 & 4 oz.	6 & 8 oz.	10 oz.	12 oz.	16 oz.	20 oz. per gross.
9/6	10/6	13/6	15/-	19/6	21/6

VIALS and HEXAGON POISONS at proportionately low prices.

TERMS: NET CASH 7 DAYS. CRATES 1/- EACH.

Carriage paid on 6 gross assorted crates up to 100 miles ex Leeds (small extra charge beyond that distance).

THOMAS SWALES,
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Compare this with the price charged by other makers, whose price is never less than £5.

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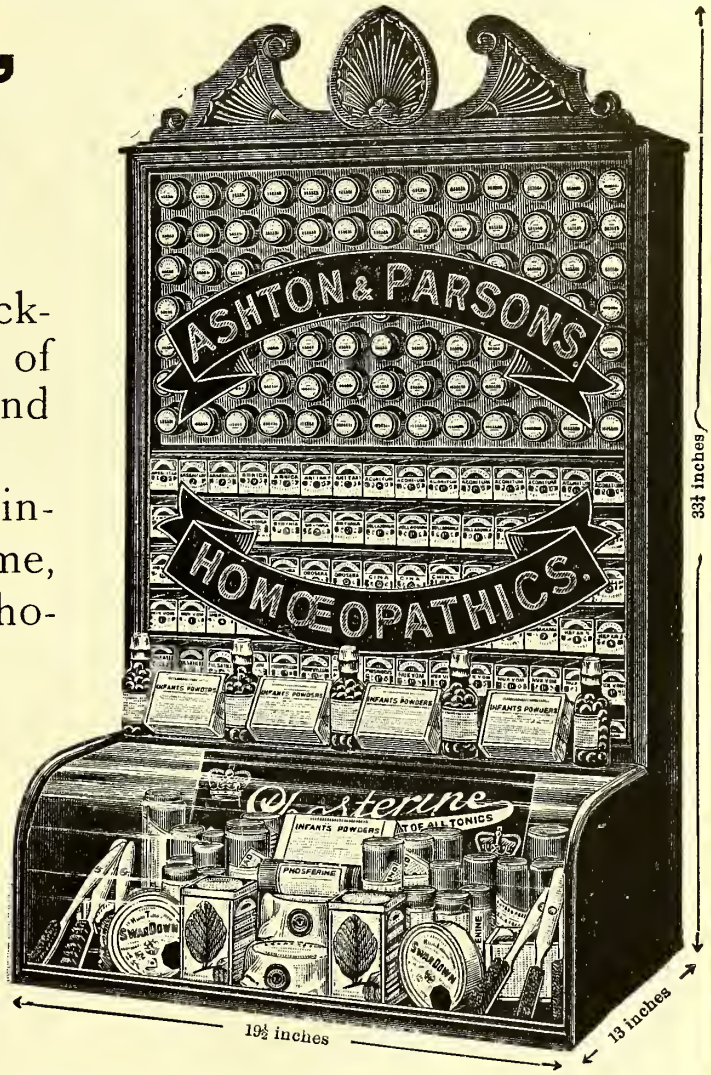

	£	s.	d.
Cost of Show Case...	1	12	0
8⅔ dozen large 1/- size Pilules at 3/- per dozen ...	1	6	0
6¼ " " " " Tinctures at 3/- per dozen		18	9
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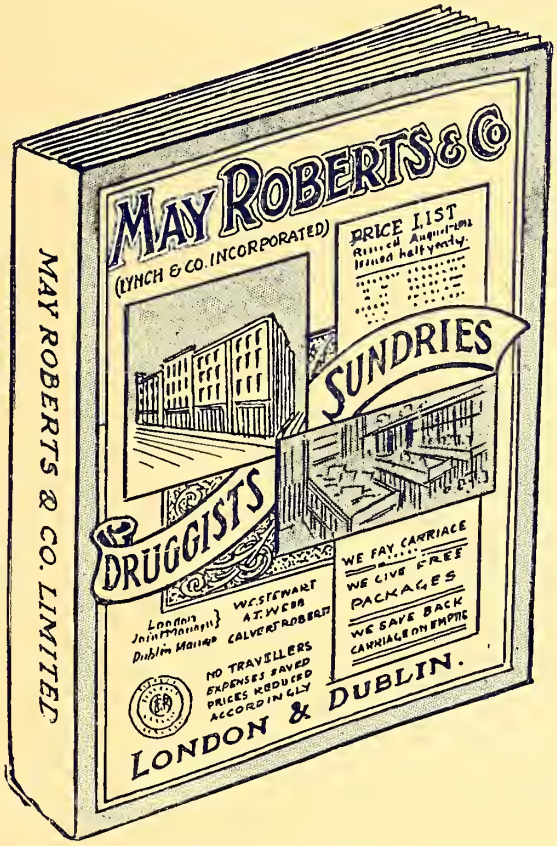

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Printed for the Proprietors by SPOTTISWOODE & CO., LTD., 5 New-street Square; and Published by the Proprietors at 42 Cannon Street, in the City of London.—*January* 3, 1914.

THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C. SATURDAY, JANUARY 3, 1914.

A Copy of this Supplement is inserted in every Number issued of "The Chemist and Druggist."

Telephone Number: Bank 852 (two lines). Telegraphic Address: "Chemicus, Cannon, London" (charged as two words)

MAY THE YEAR 1914

Smooth out difficulties for all—employers and assistants alike—engaged in the Drug, Chemical and allied trades, and

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January 3, 1914.

The "CHEMIST & DRUGGIST," 42 Cannon Street, London, E.C.

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Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

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8.—LANCS.—Mixed Business; established 1835; returns last year £2,100, at fair prices; well-fitted shop; corner position; rent £49; held on lease; terms, one year's net profit for goodwill; stock and fixtures at a fair valuation.

9.—LAKE DISTRICT.—Old-established Business; returns show a steady increase, present rate £1,400 per annum; well-appointed shop and large stock; rent £40; price £825; books open to inspection.

10.—SOUTH OF SCOTLAND.—Good-class Retail and Dispensing Business; returns last year £1,120, at fair prices; double-fronted shop; corner position; rent £60; vendor's own property; lease if desired; terms, valuation of stock and fixtures.

11.—SOUTHERN COUNTY.—Retail and Dispensing Business, with some Photographic Sundries; returns show a steady increase, now over £2,100; *gross profit* £784; to effect a speedy transfer vendor would make some sacrifice; valuation terms by arrangement.

12.—NORTH OF ENGLAND.—General Retail and N.H.I. Dispensing; returns, present rate, £766 per annum; *net profit* £260; double-fronted shop; rent £45; price £525.

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Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone **Profit, the value of Business, &c.**, can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of **confusion and loss.**

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We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

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6.—LONDON (South).—Good-class Retail and Dispensing in first-class residential suburb; returns £2,400, increasing; books properly kept; price £1,150, or valuation terms arranged.

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8.—CORNWALL COAST.—Good-class Chemist's Business; returns over £1,450, increasing; net profit £400; very best position; plenty of scope; excellent house; handsome modern-fitted shop, heavily stocked; price £1,100.

9.—LANCS. — Good profitable Light Retail in busy working-class town, practically unopposed; returns £17 to £18 weekly, increasing; low rent; good house; stock worth £450; price £600.

10. DEVON. — Sound Light Family, Retail and Dispensing, in market town; returns £700; net profit £200; excellent house; low rent; fine Pharmacy, main street; price £400 or valuation.

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12.—BEDFORDSHIRE.—Profitable Light Cash Retail; practically unopposed; returns about £800; no N.H.I. work; plenty of scope; good house and shop; price £375 or valuation.

13.—LONDON, S.W.—Sound ready-money Retail Business; good position; returns £1,000; net profit £300; well fitted and exceptionally well stocked; owner retiring; price £750; trial can be had.

14.—LONDON (Surrey Suburb).—Good middle-class Cash Business in fine position; returns £20 weekly; plenty of scope; modern Pharmacy, good stock; price £550, or offer.

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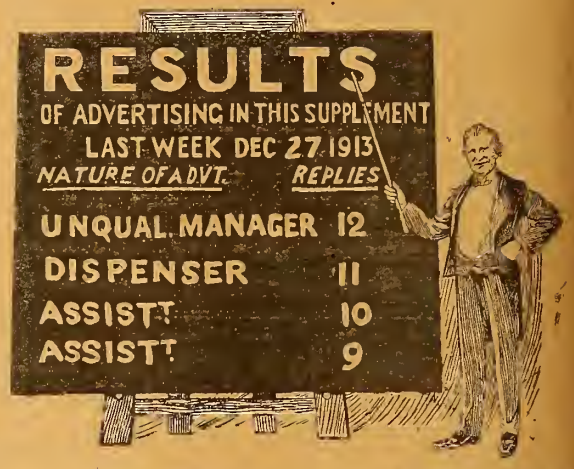

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BIRMINGHAM.—Capable Assistant wanted at once for clean Light Retail; must be reliable Dispenser; permanency to suitable man. Apply, stating age, height, salary (outdoors), references, and when disengaged, to Bramleys, 87 Holyhead Road, Handsworth, Birmingham.

BIRMINGHAM.—Assistant (outdoors) wanted in a Light Retail and Dispensing business at King's Heath. Apply, with the usual particulars, with photo, to Chas. Thompson, Pharmaceutical Chemist, 159 Stratford Road, Birmingham.

BIRMINGHAM. — Unqualified Assistant required immediately; permanency to capable and energetic man, who must be a ood Counterman and Dispenser; state age and salary required utdoors). Apply, by letter, 154/14, Office of this Paper.

BIRMINGHAM.—Part-time Assistant required for good-class Pharmacy; hours can be arranged to suit Student attending lasses. Apply, with full particulars, to B. H. Powell, 395 Dudley oad, Birmingham.

BIRMINGHAM (near), Solihull. — An Assistant wanted, age about 22-24; good-class business. State height, salary re- uired, with photo, Winfield, Solihull.

BOURNEMOUTH (near).—Junior or Improver for good-class Retail and Dispensing; time for study if desired; indoors or utdoors. Cartledge, Parkstone, Dorset.

BRIGHTON.—Qualified Manager required immediately for good- class Chemist's and Optician's business; house and light; unior Assistant kept. Apply, with full particulars as to experi- nce, age, height, references, salary required, etc., Black & Co., hemists and Opticians, 81 St. James's Street, Brighton.

DERBYSHIRE.—A thoroughly reliable Improver or Junior wanted; hours 8 to 7.30, Friday 9, Saturday 10.30; com- rtable home, and time for study could be arranged; send full par- culars, with salary required; also vacancy for respectable youth Apprentice. Geo. Heaton, Ripley, near Derby.

DOVER.—Wanted for February 2, Junior Assistant (outdoors) in Dispensing business. Send full particulars in first letter Mr. Ewell, Alexander Bottle & Co., Chemists, Dover.

GLOUCESTER.—Wanted, a Junior Assistant; comfortable home. R. J. Shepherd, Pharmaceutical Chemist, Gloucester.

GREENWICH, S.E.—An Assistant required for up-to-date Cash business and Dispensing. Apply, with full particulars, to ker, Baker's Drug Stores, 16 Church Street, Greenwich.

HULL.—Qualified Manager at once for new branch in good working-class district; General Retail and Insurance Dis- nsing. Give full particulars (photo if possible) to Arthur S. owden, Pharmacist, 442 Anlaby Road, Hull.

LEEDS.—Qualified Assistant required to take charge of important high-class Dispensing and Retail Department of Wholesale Instrument Business; no Panel work. Apply, giving full par- ulars and salary required, to Chas. F. Thackray, 52 Great orge Street, Leeds.

LEEDS.—Wanted, qualified Assistant; hours 9 to 9; half-day holiday; Saturday 11 p.m.; Sunday duty one in three; state ary and photo. Apply to E. Sleight, 134 Burley Road, Leeds.

LIVERPOOL.—Competent Assistant; outdoors; age under 30; good Dispenser and Counterman essential, and able to take rge when necessary; no Panel work. Full particulars to 'harmacist," c/o Messrs. Henry Jackson & Sons, Druggists' ndrymen, School Lane, Liverpool.

LONDON.—Assistant (indoors) for Light Retail and N.H.I. Dispensing; salary about £50. Please give full particulars to atrex, Chemist, 112 Wandsworth Bridge Road, Fulham, S.W.

LONDON, N.—Junior (outdoors) at once for Dispensing and Counter. Apply, giving full particulars and salary required, A. T. Honiatt, 35 Junction Road, Highgate, N.

LONDON, S.E.—Junior Assistant required at once or early date; accustomed to a good-class Light Retail and Dispensing busi- ; outdoors. Apply, with usual particulars, to Butcher, Curnow Co., Chemists, Blackheath, S.E.

LONDON, S.E.—Young qualified Manager for busy Retail and Dispensing, married, to live on premises, wanted soon as venient; salary £180 and commission; rent free. Apply, stat- full particulars of experience and making appointment if ible, 159/11, Office of this Paper.

LONDON, S.W.—An unqualified Junior Assistant required, about 22 years of age; outdoors. Apply to A. J. Phillips, 156 nwell Road, South Kensington, S.W.

LONDON, S.W.—Wanted, a smart qualified Assistant, about 24. Apply, with full particulars, enclosing photo, Amoore & Co., Sloane Street, S.W.

LONDON S.W.—Competent Assistant wanted (outdoors), Dis- pensing and Counter; also vacancy for Junior; time for ies if desired; near Schools. Apply to Evans, 72 North Side, ham Common, S.W.

LONDON, S.W.—Competent Assistant, age about 24, for Retail and Dispensing business. Reply, giving full particulars as eferences, experience, salary, and when disengaged, to "L. R." 4/11), Office of this Paper.

LONDON, S.W.—Immediately, unqualified Assistant; temporary or permanency. State age, experience, salary (outdoors), etc., Gray, 5 High Street, Barnes.

LONDON, W.—A qualified Assistant wanted, with West-End ex- perience (preferred); must be tall and of good appearance and address; for highest-class business; progressive salary. Per- sonal application, the Manager, Heppell & Co., 164 Piccadilly.

LONDON, W.—Required, an Assistant or qualified Lady Dis- penser. Please state full particulars, age, experience, salary required, and references. Apply, W. A. Weston, 8 Sandringham Parade, Ealing.

LONDON, W.—Wanted, an Assistant (indoors), about 22; one used to Dispensing. Apply, with particulars, to A. H. Adams, Chemist, 21 Formosa Street Maida Vale, W.

LONDON, W.—Wanted at once, good all-round qualified Chemist; capable of taking charge; working-class district; good wages. Give full particulars in first letter to 158/28, Office of this Paper.

LONDON, W.—Wanted, for a West-End establishment, a Junior qualified Assistant. Apply, stating age and references, to 73/54, Office of this Paper.

MACCLESFIELD.—At once, unqualified Assistant, age about 20; outdoors. State usual particulars and salary required to Wild, Pharmacist, 76 Mill Street, Macclesfield.

MANCHESTER.—Mottershead & Co., 7 Exchange Street, have a vacancy for a qualified Second Dispenser, with good Dis- pensing experience; no Sunday duty. Give full particulars of experience and salary required.

MANCHESTER.—Unqualified Assistant required in a high-class City business, preferably one desiring a permanency; must have had experience in making B.P. preparations and be a capable Dispenser. State experience, age, and salary expected (outdoors), 143/32, Office of this Paper.

MANCHESTER.—Qualified Manager required; must be married and be used to a working-class business; interest in profits offered to suitable applicant. 156/43, Office of this Paper.

MIDLANDS. — Competent Second Assistant; outdoors; good appearance and address; accurate Dispenser; for good-class Light Retail and Dispensing business; assist generally. State age, height, salary, with photo and references, 157/35, Office of this Paper.

MIDLANDS.—Qualified Assistant as Senior for good-class Dis- pensing business; a Partnership would be offered in the near future if mutually satisfied. Applicants should give full particulars of past experience, age, and salary required, to 154/20, Office of this Paper.

OLDHAM.—Young qualified Assistant wanted; salary £3 per week and commission; must be quick and reliable and a good Salesman. State age, height, experience, references, and photo, 154/21, Office of this Paper.

OLDHAM.—Unqualified Assistant for quick Cash business; must be reliable and a good Salesman; salary 30s. per week and commission. 154/210, Office of this Paper.

RAMSGATE.—Junior Assistant required for January 26; out- doors; must be quick and accurate. Please give full particu- lars of experience, with references and salary required, Skitt, Pharmacist, Ramsgate.

RICHMOND.—Qualified Assistant required for good-class Dis- pensing and Retail business; salary £3 per week; also un- qualified Junior required. Apply, with usual particulars, to John Parrott, Richmond Hill, Surrey.

ST. THOMAS'S HOSPITAL, S.E.—Qualified Dispenser, male, under 30 years of age. Full particulars on application to J. A. Jennings, Pharmaceutist.

SOUTHPORT.—Junior (outdoors) for Dispensing Counter and to assist generally, about January 12. Will applicants please state full particulars in first letter to Charles Hare, Pharmacist, 14 Liverpool Road, Birkdale.

SOUTHSEA.—A qualified Assistant of good address, capable of taking charge occasionally; about 27; outdoors. Apply to Arnold & Sons, Southsea.

SURBITON.—Junior Assistant wanted in good-class Dispensing and Photographic business; whole or part time; two kept. Booth, Pharmacist, 118 Ewell Road, Surbiton Hill, S.W.

TUNBRIDGE WELLS.—Young qualified Assistant wanted for Dispensing business. Apply, with full particulars, to J. H. Bishop, The Broadway Pharmacy.

WESTON-SUPER-MARE.—A competent Assistant required; accustomed to good-class Retail and Dispensing. Send usual particulars (photo if possible), Edwin Norman, Pharmaceutical Chemist, 35 High Street, Weston-super-Mare.

YORKS, West Riding.—Unqualified Manager for Drug Stores required; good permanency to suitable man; salary 30s., house free and interest in profits. 156/44, Office of this Paper.

AN Assistant, qualified; age between 25 and 30 years; must be good Counterman and Dispenser; reliable; outdoors. Apply, stating full particulars and salary required, to L. Cameron, Pharmaceutical Chemist, Seaford, Sussex.

ASSISTANT, unqualified, about 24, wanted at once in a good-class business; indoors; one day off weekly; convenient for Schools; good salary and permanency offered. Apply personally, or by letter, enclosing photo and full particulars of experience, etc., to H. Southall, 310 Hoe Street, Walthamstow, London, N.E.

ASSISTANT, immediately; outdoors; hours 9 to 9.30; half-day Thursday; no Sunday duty. Jones, Chemist, 4 Thayer Street, Manchester Square, W.

ASSISTANT, qualified, about 24, for first-class West-End business; five kept. Apply, with full particulars, to "J. W.," c/o British Drug Houses, 22 Graham Street, City Road.

ASSISTANT, unqualified, for brisk business in working-class district; Insurance Dispensing and General Retail; must be a quick and reliable Dispenser and good Counterman. Please state salary and give all particulars in first letter, if writing, Williams, Chemist, 189 High Street, Deptford, S.E.

ASSISTANT wanted (outdoors), London suburb, for N.H.I. Dispensing, Stock, etc.; commencing salary £2 and commission; also Junior for Counter, Stock, and assist Dispensing. 159/23, Office of this Paper.

BRANCH Manager.—Wanted shortly, in a first-class Dispensing and Retail business on the South-East Coast, a gentleman of good appearance and address desiring permanency, qualified, and with knowledge of Photography; to reside on the premises. Please state experience, age, height, married or single, when disengaged, and salary expected to "Lyco," c/o British Drug Houses, 22-30 Graham Street, City Road, London, N.

CAPABLE and trustworthy Assistant required, chiefly to control Dispensing Department; outdoors; moderate hours; good remuneration is offered to a gentleman with all-round experience. Apply, with fullest particulars, to Arnold Roberts, 171 High Street, Acton, W.

CAPABLE outdoor Assistant, with knowledge of Photography. State age, experience, salary, and enclose photo, also when disengaged, A. Oldfield, Westcliff Pharmacy, Westcliff-on-Sea, Essex.

CAPABLE, reliable Assistant wanted; working-class neighbourhood; N.H.I. Dispensing; hours 8.30 to 9.30, Saturdays 11, Sunday duty every second Sunday, 6 to 8. Please give full particulars and salary expected to R. R. Bagshaw, Chemist, Newton Heath, Manchester.

CLERK for Retail Druggist with some experience of the trade and quick at figures; salary £60 per annum; hours 8.30 a.m. till 7 p.m., Saturdays 1 p.m.; no Sunday or Bank Holiday duties. Apply, stating age, etc., to "B." (153/30), Office of this Paper.

COMPETENT Assistant wanted at once, about 23, used to good-class business, for Dispensing and Counter; in- or out-doors; easy hours; also a good Junior Assistant. H. Dyson, Ph. Chemist, 46 Market Place, Reading.

DISPENSER (male) required by a Medical Practitioner in Cumberland; £80 a year, with rooms and attendance; applicants not to be over thirty years of age and with previous experience. Apply, giving references, to R. Sumner & Co., Ltd., Wholesale Druggists, Liverpool.

DISPENSER (Minor) wanted for Insurance work. Apply, stating full particulars, to Cairns Johnson, Ltd., 137 Broadway, Handsworth, Birmingham.

DRUGS. — Temporary vacancies for Countermen; qualified or unqualified. Apply personally, before 11 or between 5 and 6, or by letter, stating full particulars of experience, to Staff Superintendent, Harrods, Ltd., 44 Hans Crescent, S.W.

ELDERLY qualified Assistant required; easy hours; no Sunday duty; permanency. State age and salary required, 156/42, Office of this Paper.

EXCEPTIONAL opportunity in a high-class West-End Chemist's for a qualified Assistant; indoors. Address, stating age, experience, and salary required, to Hooper, Struve & Co., Ltd., 7 Pall Mall East, S.W.

EXPERIENCED Dispenser (outdoors) for first-class work; no National Insurance Dispensing. Apply, with particulars of experience, age, and salary required, to C. A. Maries, Pharmacist, Waterloo, Liverpool.

IMMEDIATELY.—Qualified Part-time Assistant; quick and accurate Dispenser; Monday and Friday evenings 6 to 9.30, Wednesday evenings 6 to 9. Send usual particulars and salary required to Walsham, Pharmacist, Hanwell, W.

IMMEDIATELY.—Dispenser for Doctor; hours 10.30 to 12.30, 7 p.m. to 9.30. Apply, 103 Fortess Road, N.W.

INDOOR Assistants.—Wanted, a well-trained Junior (age about 20) with a practical knowledge of Photography; also an experienced qualified gentleman (age about 26) for good-class Retail and Dispensing. State age, salary required, and recent reference to S. T. Milbank, Pharmaceutical Chemist, Bishop Stortford.

JOHN BARKER & CO., LTD., Kensington, W., require experienced Counter Assistant; hours 8 to 6; 1 o'clock Saturdays. Apply, R. E. Baron, Drug Department.

JUNIOR wanted for best-class Dispensing business; outdoors. Apply, A. H. Ellithorne, 26 Wellington Road, Oxton, Birkenhead.

JUNIOR or Improver for General Cash Retail; hours reasonable; no extra duty, night or Sundays; time allowed for study if required; outdoors. Thornton, Chemist, Blaenavon, Mon.

JUNIOR Assistant early in January in good-class Dispensing business near Liverpool School of Pharmacy; should be well up in Dispensing; indoors. Anthony S. Buck, 179 Bedford Street, Liverpool.

JUNIOR or Improver wanted. Apply, with full particulars, experience, age, height, salary required, and references, Jones Brothers, Pharmacists, Mexborough.

JUNIOR wanted January 19, Light Retail and Dispensing; outdoors. Apply, stating age, salary, and give two references, Woodward, Chemist, Harwich.

JUNIOR or Improver wanted as early as possible; one having just served a good apprenticeship preferred, for high-class Dispensing and Retail; must have had experience in Dispensing and have some knowledge of Photography; indoors. Apply, T. E. Savage, Pharmacist, Crouch End, N.

JUNIOR or Improver wanted immediately; indoors; comfortable home away from business; salary, photo, and full particulars first letter; also Window-dresser or Part-time Assistant. Sawdon, 795 Lea Bridge Road, Whipps Cross, Walthamstow.

JUNIOR Assistant, unqualified, age about 25, wanted immediately for London, N.W.; outdoors; quick and accurate Dispenser. Please state experience and salary required, 158/40, Office of this Paper.

LEWIS & BURROWS have a vacancy for a smart unqualified Assistant. Apply, with full particulars, enclosing photograph, to 146 Holborn Bars, E.C.

MANAGER (early in January) with view to succession for good Dispensing business. Apply, full particulars, to C. Dampney, 87 Abingdon Road, Kensington.

MANAGER, single, qualified, for seaside resort; capable of taking sole charge, N.H.I. pricing, etc.; can live in if desired. State fullest particulars, 149/31, Office of this Paper.

MANAGER, holding Pharmaceutical and Optical qualifications, wanted for London Suburban business; good opportunity for young energetic man. Full particulars on application to 143/19, Office of this Paper.

MESSRS. TIMOTHY WHITE CO., LTD., Chemists, Portsmouth, require a capable Pharmacist as Manager; easy hours; good and progressive salary, with excellent prospects.

MESSRS. SAVORY & MOORE require at once a qualified Assistant with good Dispensing experience and accustomed to a high-class business. Apply, with full particulars, stating age and salary required, to Manager, 143 New Bond Street, London.

QUALIFIED Assistant immediately for Dispensing Counter; also good reliable Junior; hours moderate. Send full particulars and state salary (indoors) to Horniblow, 29 Sidbury, Worcester.

QUALIFIED Manager, married or single; if married, good house; no Sunday duty; half-holiday; and duties not by any eans heavy and weary; splendid berth for a good man; give rticulars, in first letter, of age, references, height, salary required noderate), and photograph. Apply, "Drugs," (143/11), Office of is Paper.

QUALIFIED Assistant, also unqualified Junior, required for good-class Dispensing and Retail business where three are ept; must be good Countermen and accurate Dispensers. Apply, atiug age, height, experience, and salary required (board and dging provided), also enclose photo, Procter, 5 Station Parade, astbourne.

QUALIFIED Assistant, accustomed to good-class business, quick, energetic; outdoors; moderate hours. Apply, with full pariculars of experience, age, height, salary required, etc., to the ecretary, Hedges (Chemists), Ltd., Dale End, Birmingham.

QUALIFIED Assistant, about 24, wanted for about 6 weeks; must have had good Dispensiug experience. R. C. Harrison, Ph.C., Crayshott, Haslemere.

QUALIFIED Manager for new Branch, good working-class district in West London; Insurance Dispensing; Extractor preferred; good liviug rooms over shop, or outdoors if preferred; comfortable permanency and every consideration for suitable Manager; apply personally. If by letter, send photo and all usual particulars to Barton, 74 Strafford Road, S. Acton, London, W. Telephone: 966 Chiswick.

QUALIFIED Assistaut, age about 23; duty shared by three. Dyson & Co., 35 Gloucester Road, South Kensington, S.W.

QUALIFIED aud unqualified. — Elderly qualified mau wanted for supervision only; also unqualified Assistant; young man not intending to qualify and looking for a permanency preferred; salary (outdoors) commencing at 30s., and rising to 45s. 156/12, Office of this Paper.

QUALIFIED Chemist, well up in Toilet Goods, used to large stores, not multi shops, to Manage and buy. State age, experience, and salary required to "F. M." (155/24), Office of this Paper.

QUALIFIED Manager required for working-class business; good terms offered to a really capable and energetic man. "Manager" (156/41), Office of this Paper.

QUALIFIED Manager to develop small Branch; married, to live on premises; respectable working-class district. Please send full particulars, salary required, etc., 158/13, Office of this Paper.

QUALIFIED Assistant for the Dispensing Counter in first-class West-End business; three kept; in- or out-doors; age about 23. Apply, with full particulars, to "Salicin," c/o British Drug Houses, 22 Graham Street, City Road, London, N.

REQUIRED four or five evenings weekly from 7 to 10, a competent and reliable Dispenser for N.H.I. Dispensing; not more than 35 years of age; salary 1s. per hour; business within 10 minutes of Shoreditch Church. Apply, with full particulars (letter only), "Chemist," 300 Amhurst Road, Stoke Newington, N.

REQUIRED middle of January, unqualified Assistant; indoors; good experience in Dispensing, Photography, and Optics absolutely essential. Cruse & Co., Ltd., 7 The Strand, East Southsea.

SMART Junior wanted at an early date; indoors. Apply, with full particulars, to Gregory & Wrenn, Chemists, Taunton.

THE Stockport Co-operative Society, Ltd., require the services of a smart young man as Junior Assistant (unqualified) for the Chemistry and Drug Department; age about 20; wages 26s. to 28s.; applications, by letter only, endorsed "Assistant," stating age and full particulars of experience and present position, must reach the undersigned not later than first post on Thursday, January 8; canvassing members of the Committee will disqualify. By Order of the Committee, S. Taylor, Secretary.

UNMARRIED Assistant; indoors; knowledge of Dispensing and Photography; references and usual particulars, Shepperd, Pharmacist, Barnstaple.

UNQUALIFIED Assistant wanted middle or end of January for good-class business; good knowledge of Photographic trade desirable. Apply, enclosing photo, and stating age, height, experience, and salary required, to Birkett, 25 Finkle Street, Kendal.

UNQUALIFIED Assistant for Counter, etc., about 22 years; quick, accurate, and tactful; good salary and commission. Photo and full particulars, Lester & Williamson, Chemists, Foleshill Road, Coventry.

UNQUALIFIED Assistant required towards end of January, age 25 to 30; good Counterman, and one with knowledge of Agricultural business preferred; easy hours. State full particulars, references, and salary required, Allison, Chemist, Cockermouth.

UNQUALIFIED Assistant or Junior; in- or out-doors; usual hours, State terms and reference, Hogg, Chemist, Bideford, N. Devon.

UNQUALIFIED Assistant wanted at once; age about 30 years; must be capable of Managing, a good Window-dresser, and a quick and accurate Dispenser; reliable references required; good salary to capable man. Apply personally to David Foules, 730 Old Kent Road, S.E.

UNQUALIFIED Junior and Senior Assistants for Mixed Country business; good all-round experience required. Give particulars in first letter of age, height, recent references, salary required, and enclose photo (which will be returned), Latham, Chemist, Shirebrook, Derbyshire.

WANTED, an Assistant for 2 or 3 evenings a week from 7 till 9.30; principally Dispensing; Minor or Hall preferred. Apply, Byass-Jones, 331 West Green Road, Harringay, N.

WOMEN Dispensers required temporarily in connection with the pricing and examination of Chemists' Prescriptions; wages 25s. a week. Applications, on foolscap paper, in the applicants' own handwriting, should state qualifications, experience, and age, accompanied by copies of three testimonials, and forwarded to Mr. T. Batey, 5 Chancery Lane, W.C., at once.

COUNTY BOROUGH OF GRIMSBY.
EDUCATION AUTHORITY.

MUNICIPAL COLLEGE
WINTRINGHAM SECONDARY SCHOOL.
APPOINTMENT OF LABORATORY ASSISTANT.

THE above Authority are prepared to receive applications for appointment as Laboratory Assistant (Male) to the Upper School at the Municipal College.

Salary £60 per year.

Application to be made by letter, stating age and previous education, and to be addressed to the undersigned on or before Saturday, January 17, 1914.

DOUGLAS CHANDLER, Clerk to the Education Authority.
Education Offices, Grimsby, January 1, 1914.

WHOLESALE.

COUNTER hand for Dry Floor, aged about 20. Apply, stating full particulars of previous employment, wages expected, and if disengaged, to 159/240, Office of this Paper.

COUNTERMEN, Improvers, some experience in Wets and Drys, wanted by Manufacturing Chemists, age 17 to 21. Write, stating experience, wages required, references, etc., to 158/19, Office of this Paper.

DRYSDALES, LTD., Wholesale and Manufacturing Chemists, Brisbane, Queensland, invite applications from gentlemen who are willing to act as their London Buyer; applicants must have a thorough knowledge of the Australian trade, including Drugs, Patents, and Sundries, and must forward credentials to that effect from well-known British exporters. Replies, with full particulars as to terms, etc., should be addressed to the Managing Director, Petrie's Bight, Brisbane, Queensland.

EXPERIENCED Counter hands, aged about 24, with good knowledge of Wets and Drys, required; progressive appointments for energetic and competent men. State record and wages required to 159/24, Office of this Paper.

JUNIOR Invoice Clerk required in the offices of a large Wholesale Druggists; one used to Typing and with knowledge of Drugs and Chemicals preferred. Address, "Trophies" (71/56), Office of this Paper.

JUNIOR Clerk wanted; one with experience of Druggists' Sundries, etc., preferred; age 15 or 16. Write fully, stating age and wages required, to "A. B. C." (159/8), Office of this Paper.

PHARMACIST wanted to Represent Manufacturing Chemists among Medical men and Chemists in Scotland and Midlands; good education and knowledge of Therapeutics essential. Apply, with particulars, 59/3, Office of this Paper.

PILLS.—An experienced Pill Hand wanted for Hand-cutting and General work; also a Smart Boy for the Stockroom. State age, experience, and wage required to 153/19, Office of this Paper.

QUALIFIED Chemist required on Board of shortly to be formed Limited Company exploiting popular Medicines; must invest £250 (10 per cent. minimum guaranteed); services can be retained at good salary if wished. Send all particulars in strictest confidence, Sussex Supply Company, 12 Vallance Road, Hove.

RELIABLE young man required, used to Chemist and Druggist (Manufacturing); excellent opportunity for the right man; first-class references most essential. State fully experience and wages to start to "Mac" (143/33), Office of this Paper.

TABLET Maker, experienced, wanted by London firm. Write, stating previous experience and wage required, 151/31, Office of this Paper.

WANTED at once, an experienced Counter hand who has been accustomed to put up Wets and Drys; must have a good reference and be between 25 and 35 years of age. Apply, by letter, "W. C. H.," 46 Southwark Street, London.

WANTED by Wholesale Druggists' Sundriesmen, competent Ledger Clerk, with undeniable references; good penman and accurate at figures. Apply, stating age, experience, and salary required, to 154/4, Office of this Paper.

WANTED, for provincial Wholesale Drug house, Assistant for Wet and Dry rooms. Apply, stating wages required, etc., Box 5, Post Office, Exeter.

WANTED, the services of a good London Traveller; whole time preferred, but one already calling on Pharmaceutical and Perfumery Wholesalers and Retailers might do. Apply, stating full particulars, to "X. M. Z." (72/50), Office of this Paper.

WET Department.—Capable Assistant required; must be experienced; good references. Full particulars to 72/43, Office of this Paper.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

3s. 6d. for 50 words or less; **6d.** for every **10** words or less beyond, prepaid. The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of **6d.**

CHINA.—A qualified Assistant (24 to 28) required, with experience in Manufacture of P.B. preparations and some Analytical knowledge; four years' agreement; passage paid out and home; good salary and excellent prospects to a suitable man. Apply, with full particulars, to 34/53, Office of this Paper.

INDIA.—Qualified Assistant required for a first-class private British firm of Chemists; age about 25; 3 years' agreement; second-class passage paid out; salary, including free board and quarters, first year £160, second year £180, third year £200. Apply, with photo and references, to "R. L.," S. Maw, Son & Sons, 7 Aldersgate Street, London, E.C.

MALTA.—Qualified Assistant required, young and energetic; good Salesman; three years' agreement; salary £11, £11 10s., and £12 per month; passage paid out and home; room provided. Apply, with all particulars and photograph, to "Malta" (70/5), Office of this Paper.

RIVIERA.—Wanted, an Assistant, for four months, immediately; travelling expenses allowed. Apply, "B.," Evans Sons Lescher & Webb, Ltd., 60 Bartholomew Close, London, E.C.

LABORATORY Assistant required for South Africa; unmarried; not over 30 years of age; passage paid out; three years' agreement. Apply, by letter only, to "L.," 14 Lafone Street, Tower Bridge, London, S.E.

PHARMACIST, age about 24, English, preferably with some knowledge of Italian, wanted by English firm of Wholesale Chemists established in Italy; applicant should have had a thorough business training and some experience of keeping a varied stock; must be a good organiser and accustomed to direct the work of a small staff. Apply, with full particulars, including salary required, to 146/20, Office of this Paper.

WANTED by an old-established English Company in the Far East, a thoroughly competent Assistant, holding the Minor qualification and having had good experience in first-class Retail business; age under 30; salary commencing at £225 and rising to £265 per annum, with quarters or an allowance in lieu thereof equal to approximately £60 per annum; passage paid out and home on a four years' agreement. Address, "Export" (151/22), Office of this Paper.

WANTED for Calcutta, India, by first-class old-established firm, Chemist's Assistant with Minor qualification, unmarried, age about 25; four years' agreement; salary (monthly) first year Rs. 250, second Rs. 275, third Rs. 300, and fourth Rs. 325; passage paid out and home. Apply, with full particulars of experience, etc., to 158/12, Office of this Paper.

SITUATIONS WANTED.

1s. for 12 words or less; 6d. for every 10 words or less beyond, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of **6d.**

[HOME.] RETAIL.

Price lists, trade circulars, samples, and printed matter can in no case be forwarded.

ASSISTANT (34) West-End experience, thoroughly well up, seeks appointment early January. 154/33, Office of this Paper.

ASSISTANT, Manager, or Locum; any period; thoroughly experienced; competent, reliable Dispenser, Salesman, Prescriber, Window-dresser, Photography; good testimonials. "Chemicus" 2, Claverton Street, Pimlico, S.W.

BRANCH Managership required shortly by Pharmacist, 38, single; London preferred. "Moderate" (149/17), Office of this Paper.

BRIGHTON.—Dispenser; Part-time, Locum, etc.; unqualified; 35; honest, faithful, energetic; total abstainer; Doctor, Hospital, private practice experience; little shop experience; good references. Cameron, 32 Prestonville Road.

BRISTOL or District.—Qualified seeks Part-time engagement. 158/2, Office of this Paper.

COMPETENT Assistant or Manager; 30; single; abstainer; outdoors; 14 years' good-class Retail, Dispensing, and Photographic experience; 5 years' and 4 years' references; permanency; thoroughly capable; disengaged January 5. "Optics," 57 Monkgate, York.

DISENGAGED shortly till 6.30; experienced first-class Dispenser; Insurance Dispensing; quick and qualified; Counter; good Salesman. Gibson, 115 Scott-Ellis Gardens, St. John's Wood.

DISENGAGED; good Dispenser; used to N.H.I. work; Window-dresser, etc.; 15 years' London experience. Shiels, 47 St. Donatts Road, S.E.

DISENGAGED; Locum, permanency; sound all-round experience; well recommended. "Insurance," 14 Anstey Road, Camberwell, S.E.

DISPENSER (Minor), 34, experienced, desires post with Doctor. 273 High Street, Acton.

DISPENSER-BOOKKEEPER seeks temporary or permanent post; London or near; Doctor or Chemist. 155/12, Office of this Paper.

DOCTOR of Pharmacy (Hungary), aged 27, speaking fluent German and with fair knowledge of English, requires post as Assistant in English Pharmacy (London preferred) for January 15; 5 years' experience; excellent references; used to cosmopolitan business. Dr. Toffler, 80 Sterndale Road, West Kensington, W.

GLASGOW Improver seeks London situation; excellent references; Salesman, Dispenser, Photography; tall; registered. 146/17, Office of this Paper.

HOSPITAL, Institutions; competent Locum; middle-aged and registered C.D. "M.P.S.," 8 Clifton Road, Sidcup.

HOSPITAL Locum, qualified Dispenser. Irving, 66 Rowfant Road, Balham, London, S.W.

IMPROVER (18) finishing apprenticeship January 5; indoors preferred. Warlties, 109A Hollyhedge Lane, Walsall.

INSURANCE Dispensing; evenings; Lady; qualified. "E. B.," 140 Green Lanes, Stoke Newington.

JUNIOR (20), tall, requires outdoor situation in Liverpool. Thomas, 19 Thackeray Street, Princes Road, Liverpool.

JUNIOR desires situation in or near Leicester. Forrester, Denstone, Rocester, Stafford.

NIOR; smart, tall, dark, energetic, reliable; Photography, Optics; immediately. Jones, Oak House, Barmouth.

NIOR Assistant, 21, just out of apprenticeship (4 years), desires engagement, preferably in Sheffield; commence immediately; abstainer. Peace, Belmont, Stockbridge, near Shef-

NIOR in good-class Pharmacy; well-educated; disengaged after January 16. State salary, hours, etc., A. E. Thompson, Priory Avenue, High Wycombe.

NIOR; 21; tall; 5½ years' experience; Retail, Dispensing, and Photography; West of England preferred; good references. emicus" (146/15), Office of this Paper.

NIOR (21) seeks situation in good business near College. Freakley, 10 Northgate, Gloucester.

NIOR; just completed apprenticeship; Retail and Dispensing. Stephens, 42 Garden Street, Devonport.

NIOR (20½), 5 ft. 9 in., requires berth; 4½ years' Dispensing and Counter; reasonable hours; disengaged January 12. 6, Office of this Paper.

NIOR (18) requires permanency; 4 years' London experience; quick and energetic. Apply, 155/28, Office of this Paper.

DY Dispenser (Hall) requires re-engagement in London; Doctor or Institution; good references. 151/23, Office of this r.

DY Dispenser requires post with Doctor or Institution; fully qualified; first-class references; Midlands preferred. J. ht, Studley House, Prebend Street, Leicester.

CUM; qualified; 48; disengaged; first-class references and experience. Dewey, 3 Helena Avenue, Margate.

CUM or evenings; qualified. 74 New King's Road, Fulham.

CUM or permanency; disengaged; 36; good Dispenser. "Chemist," 91 Belgrave Gate, Leicester.

CUM or Manager; qualified; exceptional experience and references. Address, "Chemicus" (158/21), Office of this Paper.

CUM town or country, permanency town; highest references. Forster, 5 Coleridge Road, Finsbury Park, N.

CUM; 31; qualified; town or country; disengaged January 8. "A.," 311 Fulham Palace Road, S.W.

CUM-TENENS; disengaged; town or country. "Chemist," 26 Lyme Street, Camden Town, London.

NAGER with view to early succession; able to purchase for cash; country business preferred in healthy district; highest ences. "W. E. J." (151/28), Office of this Paper.

NAGER, qualified, or desirous of Purchasing Business on easy terms; good business ability and thorough knowledge e business; age 26; good salary and commission required. emist," 64 York Place, Newport, Mon.

NAGER, Representative, or responsible post, permanency, by energetic Pharmacist; 30 years' varied experience; ex- t references; disengaged. D. Senior, 47 Shrewsbury Road, nhead.

NAGER, Assistant; unregistered; 36; good varied experience. "Chemicus," 27 Portsmouth Street, C.-on-M., Manchester.

NAGER, Locum; 33; disengaged; qualified; best references. "Pharmacist," Rudge House Staplefield, Crawley.

NAGER, excellent experience, desires situation within two hours' journey of Newport; healthy, bracing place necessary amily. Evans, Pharmacist, Salisbury Road, Cardiff.

NAGER or Assistant; 39; tall, energetic, thoroughly competent; good experience; smart Dispenser and Salesman; a ess developer; excellent references. "Salol" (156/2), Office is Paper.

NAGER; 27; married; Dispensing, Photography; City and provincial experience. Apply, 156/11, Office of this Paper.

NAGER; 45; married; reliable, energetic, experienced; work up branch, or easy succession. Address, "Energy" /21), Office of this Paper.

NAGERSHIP with view succession; qualifications: Minor, F.S.M.C., M.B.O.A.; capital at disposal. "P. K." (151/340), of this Paper.

MANCHESTER. — Experienced, unqualified Assistant requires Part-time. Stansfield, 6 Melbourne Avenue, Stretford.

PART-TIME; mornings and afternoons; City or West End preferred; moderate salary; highest reference. "Rhei," 26 Crford Road, Walthamstow.

PERMANENCY desired by experienced man, unqualified; competent and reliable; town; outdoors. "Quick" (153/16), Office of this Paper.

PHARMACIST desires good post as Manager; London; permanency; 46; married; reliable. "Phenol" (154/12), Office of this Paper.

PRESCRIBING, Dispensing, Extracting, N.H.I., or Part-time; Assistant, Manager. "Up to Date" (155/38), Office of this Paper.

QUALIFIED; Part-time; advertiser wishes to study Optics; London preferred. Apply, "Apiol" (151/17), Office of this Paper.

QUALIFIED; 24; good varied experience. Please state hours and salary offered "H. E." (151/170), Office of this Paper.

QUALIFIED, 24½, 5 ft. 7 in., desires permanent progressive berth; Hospital, West-End, Insurance experience; quick, sober, steady; state hours and remuneration; good references; disengaged January 24. Walkden, 133 Cardigan Road, Leeds.

QUALIFIED; 28; Manager or Senior; good Dispensing and Retail experience; Photography; reliable. W. S. Stott, 35 High Street, Weston-super-Mare.

QUALIFIED Manager, good experience and references, desires permanency; disengaged shortly. Daniels, 4 Napier Road, Kensington, London, W.

QUALIFIED; 42; Manager or Dispenser; immediately; outdoors. Wicks, Ufton, Reading, Berks.

QUALIFIED (23) requires outdoor situation in London; Locum or otherwise. 146/21, Office of this Paper.

QUALIFIED, age 28, good experience, desires London berth. "Pharmacist," 46 High Street, Dawley, Salop.

QUALIFIED Pharmacist (28), capable and energetic, excellent experience, desires permanency. Particulars to 152/7, Office of this Paper.

QUALIFIED; as Assistant or Manager; many years' experience, town and country; middle-aged. State salary and hours, Scholey, Burnham Market, Norfolk.

QUALIFIED; 25; disengaged; good experience; Dispensing. Owen, Holmwood, Granville Terrace, Mountain Ash, Glam., S. Wales.

QUALIFIED; as Manager or Locum; married; good experience. "Statim," 91 High Street, Seven Oaks.

QUALIFIED; Manager or Locum; responsible position; exceptionally good all-round experience, London and country; satisfactory references. "Aspirin," 11 Hadham Road, Bishop's Stortford, Herts.

QUALIFIED; Manager, Senior, or Locum; high-class London experience; good references; knowledge of French; middle-aged; disengaged; outdoors. Stanley, 147 Sulgrave Road, W.

QUALIFIED; Manager; middle-aged; married; furniture; excellent references; free about January 16. 155/1, Office of this Paper.

QUALIFIED (26) requires permanency; outdoors; good experience; references; disengaged; West of England preferred, but not essential. "Lux" (154/17), Office of this Paper.

QUALIFIED Manager; 39; married; active; abstainer; seeks permanency; busy Pharmacy; view to succession on easy terms preferred; disengaged middle January. "Maurice" (155/19), Office of this Paper.

QUALIFIED (29), good experience, desires berth as Manager with view to purchase. 155/20, Office of this Paper.

QUALIFIED (40), in indifferent health, desires permanency in useful capacity, or where qualification is necessary; single; good varied experience, supervising, Dispensing, etc., at moderate terms. "Capable" (155/25), Office of this Paper.

QUALIFIED; Managership; 40; busy one-man branch; abstainer; undeniable references; plenty of work; livable hours and fair remuneration required; disengaged. 155/7, Office of this Paper.

QUALIFIED; Locum or permanent; 40; tall; good appearance and address; especially Dispensing. Longman, 229 Westminster Bridge Road, S.W.

QUALIFIED; 22; London preferred. Hours, salary, J. Bowes, Christian Street, Maryport.

QUALIFIED; 30; Manager or Senior; highest references; good experience. "Alpha" (159/22), Office of this Paper.

30-/.—Assistant or Manager; competent Dispenser, used to N.H.I.; can Prescribe; smart Salesman and Window-dresser; used all branches; age 35; disengaged; 12 years' reference. "Rhei," c/o Mrs. Stones, Knowl, Mirfield, Yorks.

UNQUALIFIED; Assistant, Locum, or Relief; married; Birmingham preferred; thoroughly recommended. "Gentian" (143/15), Office of this Paper.

UNQUALIFIED; Manager or Senior; married; disengaged; 10 years' experience; thoroughly competent; exceptional references; permanency. "L.," 62 Pernthorpe Road, Streatham.

UNREGISTERED; Branch Manager, Assistant, Locum; 35 years; Extractor, Prescriber, Photographic; good experience; holding excellent references and N.H.I. qualification; disengaged. 34 Cawdor Road, Fallowfield, Manchester.

UNQUALIFIED; Assistant or Manager; 36; married; good address; Photo, Dentistry; permanency; disengaged; town or country. "Statim," 18 King Street, Margate.

UNQUALIFIED, Assistant or Manager, 34 years, married, desires change; permanency desired; 17 years' good-class experience; Photographic, Dispensing, Bookkeeping, Counter; Lancs or Yorks; not yet at liberty. "Acetic," 287 Hyde Road, Manchester.

UNQUALIFIED; 25; good experience; disengaged January 3. Lemon, 5 Birch Grove, Acton.

UNQUALIFIED; age 30; height 6 ft.; first-class experience all branches; good Salesman and Window-dresser; as Assistant or Manager; London or the North preferred. Stanstead, Cottenham, Cambridge.

UNQUALIFIED; Assistant; resourceful and tactful Salesman, Window-dresser; Dispensing; excellent references. Apply, 154/23, Office of this Paper.

UNQUALIFIED; evening work wanted; Dispensing or Surgery Attendant. "A.," 24 College Street, Chelsea.

UNQUALIFIED; 40; 20 years' London experience; disengaged; permanency. "Salvarsan" (158/36), Office of this Paper.

YOUTH (16), tall, gentlemanly appearance, Secondary School education, and one year's experience in the Wholesale Drug and Sundry business, wishes to enter in the Retail Chemist and Dispensary business as learner; indoors; small salary required. Apply, 70/66, Office of this Paper.

WHOLESALE.

Price lists, trade circulars, samples, and printed matter can in no case be forwarded.

ASSISTANT, age 30, well up in all branches, Wets, Drys, etc., including dispatch, seeks change; excellent references; moderate salary. 154/24 Office of this Paper.

EXPERIENCED Representative, well known to Medical profession and Pharmacists, desires engagement where the services of a first-class man would receive appropriate remuneration. Apply, "Rectangle" (155/14), Office of this Paper.

HEAD Porter or Warehouse; 9 years' experience; good references. 159/10, Office of this Paper.

LABORATORY Manager. — Qualified Chemist desires position; long experience in Manufacturing, Standardising, and in general Analytical work; first-class references; home or colonial. 154/35, Office of this Paper.

QUALIFIED Pharmacist, with wide experience, England and abroad, desires Part-time Representative work in London. 151/3, Office of this Paper.

SALES AND ADVERTISING MANAGER (Pharmacist) desires change; has had exceptional experience and is open to take entire charge if necessary of the marketing of a Household, Medical, or Chemical Speciality; good knowledge of town and country from actual working; able to write up press and general advertising matter and organise and develop sales on sound modern lines; at present with firm who have made many Proprietaries household words. Address, "Progressive" (153/13), Office of this Paper.

SITUATION; Foreman or Second; Drugs, Sundries, Patents; competent Truss Fitter; 40; tall; energetic; Liverpool district preferred. Frearson, 137 Harrowby Street, Liverpool, South.

TRAVELLER; experienced; South of England and South Wa salary and expenses. 154/2, Office of this Paper.

TRAVELLER, North of England and Scotland; large experience and valuable connection; Toilet Soap. Address, 154/1, Of of this Paper.

TRAVELLER, representing old-established firm, wishes a ditional Representation for Lancashire and Midlands; exte sive connections with Chemists; expenses allowance and comm sion suggested. 157/34, Office of this Paper.

YOUNG man (24) requires situation in Druggists' Sundr Warehouse; 9 years' experience. Apply, "A. T.," 71 Re mondsey Street, S.E.

MISCELLANEOUS.

McADAM & TUCKNISS, Sharedealers, Bank Chambers, Blac heath, S.E. Established 1898. Telephone 81 Lee Green. Shares for Sale (free of commission, subject).—95 Allenbur "B" 6 per cent. Preference, 23s. 9d.; 50 "C" 6 per ce Preference, 23s. 1½d.; 25 W. J. Bush Preference, 79s. 6d.; 1 Peek Frean Preference, 21s. 1½d. c.d.; 266 Camwal Ordinar 1s.; 85 Lever "C" Preference, 22s. 6d.; 75 Boots' Western 6 p cent. Preference, 24s.; 100 Brunner Mond Ordinary, 92s.; 50 Selfridge 6 per cent. Preference, 20s. 6d.; 100 Alby Carbid 33s. 9d.
Wanted (subject).—40 J. Knight Ordinary, 24s.
List of Shares for *Sale* and *Wanted* sent free on applicatio Every effort made to effect business for Buyers and Sellers all Stocks and Shares. Bankers, London and County and We minster.

FOR Sale, English Patent Rights for the manufacture of t Calcium Salt of Acetylsalicylic Acid. Write to 149/5, Offi of this Paper.

SECOND-HAND CHEMISTS' FITTINGS.—We ha e an exceptio ally fine selection of these in all sizes; prices are right a goods are in first-class condition; we shall be pleased to supp particulars and prices. Call or write, RUDDUCK & CO., 262 O Street, E.C.

CHEMISTS' Fittings, Secondhand.—Enough to fit up a do shops, comprising Ranges of Shelving, Drawers, Locke Counters, Piano-fronted Wallcases, Dispensing-screens, Count cases, Shop Rounds, etc., at give-away prices. D. Matthews & S The Chemists' Fitters, 14 and 16 Manchester Street, Liverpo

BEST cash price for all old Cameras, any make, also all o Photo goods, no matter how damaged; any kind you may ha send them along; cash will be sent same day; no waiting; we b all and return nothing. S. E. Hackett, 23 July Road, Liverpool,

McQUEEN'S System of Accounts for Chemis works out gross and net profi balance sheet, and income-tax return with guaranteed certaint a work well known and considered indispensable by progress Chemists (Eleventh and improved Edition). Full particulars a testimonials, post free, McQueen & Co., Moat Road, E. Leicester.

SHOWCASES and Shopfittings (second-hand), room requir for alteration.—Dispensing-screens, Counters, Wall-cas Silent Salesmen; many hundreds in stock; to be sold at g reductions. PHILIP JOSEPHS & SONS, LTD., 93 Old Stre London, E.C.

CHEMISTS' Fittings, Silent Salesman Showcases, Drugfittin Dispensing-screens, Wall-cases, Perfume-cases, Desks, Gla front Counters, Counter Drawers, Shop-soiled, Second-hand, at beaten prices; before you decide get my estimate, you can't better; 30 years fitting Pharmacies. George Cook, the Chemi working Shopfitter, 30 Buttesland Street, East Road, near Street Tube Station.

CHEMIST'S second-hand large stock of Drug-fittings, Wall-cas Dispensing-screens, Glass-fronted Counters, Window-Enclosu Mirrors, Window Shelves, Swan-neck Carboys, also compl Fittings for large Drug Stores, cheap to clear; estimates fr cheapest house in the trade for structural alterations, Shop-fro etc. H. Mills, Chemists' Shop Fitter, Shop Front Builder, Ste Works, 163-5 Old Street, E.C.

PRINTING tasty in design, produced under proper and heal conditions, from modern type, at up-to-date prices; Brochu Packet, Handbill, Business Stationery and General Printing; h you seen samples? a postcard (printed heading) will bring th Walter Knight, Chemists' Printer, Rushden. Established 1895.

WANTED to Purchase for cash, 300 old A Carboys (not oil). Address, "Carboy (54/61), Office of this Paper.

XCHANGE COLUMN

e halfpenny per word with name and address. One penny per l if we register the address and attach a number.
advertisement inserted for less than 6d.

FOR DISPOSAL.

OPTICAL AND PHOTOGRAPHIC.

MICROSCOPIC slides, 2s. dozen, 10s. lot; approval, exchange. Lintin, 86 Freedom Road, Sheffield.

MISCELLANEOUS.

NTING press, metal type, accessories, 10s.; great bargain. Particulars, W. Webster, 291 Normanton Road, Derby.

WANTED.

KS suitable for Minor. Apply, "John," 25 Bridge Street, Worksop.

E optical trial lenses, with or without rims. Wilcockson, Southampton.

AP second-hand cash till register (wooden). 146/18, Office of this Paper.

GE tablet showcase; good condition and cheap. 159/230, Office of this Paper.

LSIFIER, sifter, mixer, grinders, and other pharmaceutical machinery for small manufacturer. 149/30, Office of this Paper.

THALL'S "Materia Medica," Lowson's "Botany," and Lucas' "Dispensing." Particulars to Brown, 62 Ulundi Street, Radcliffe, Lancs.

ICAL books; Minor Major, Chemists' books; send prepaid for valuation; cash offers per return. Gower, Bookseller, 41 Voltaire Road, Clapham, London, S.W.

SOUND PRACTICAL IDEAS

re what you require in your Business. See last week's advt. his is a good line, and will pay you well. Note.—Only one harmacist in a town supplied. Send for it, and commence e New Year well. A New Self-Washer (no Soap, Alkali or Vax). Washes woollens without labour. A good line for Scotch harmacists. Retails from 1d. or 2d. Formula and advertis- g scheme for same 5/-. Ideas like these are part of my usiness System, and are essential in an up-to-date Pharmacy.
ILLYARD ALLISON, Pharmacist & Business Specialist, RETFORD.

A BRIGHT NEW YEAR depends upon ourselves, upon our readiness to adopt the newest and best methods of doing and getting business. Have you written for details of **BROMLEY'S TALKING CARDS**, or are you still wrongly thinking they are merely ordinary window cards under a fancy name? Write now, and learn what others have done with this new method of window-advertising.
BROMLEY, Chemist, WHETSTONE, MIDDLESEX.

ACCOUNTANCY

e new year is an excellent period for adopting a modern and stematic method of bookkeeping. Correspondence invited on tters appertaining to office routine; re-organisations; balance ets; trading results; income tax; company requirements; me costs; partnership and executorship accounts; secretarial duties, and every branch of accountancy and auditing.
spectus and terms on application. 'Phone 906 Holborn.
BORROW, SONS & CO., 19/20 Temple Chambers, Temple Av., LONDON, E.C.

ORMULAS for B.P.C. preparations on the Insurance drug tiff are printed in an eight-page leaflet, which is sup- ed at 6d. per doz. (7d. by post) by the *C. & D.* Book De- rtment, 42 Cannon Street, London, E.C.

MINOR EXPERIENCES.

W. N. B. (240/62) says he duly presented himself, with thirty-four others, at Galen Place, London, W.C., all hoping for the best. He continues: On being sent to

CHEMISTRY, and having climbed what seemed an endless spiral staircase, I found that, being an "odd number," I had to do the qualitative work first. At the end of an hour and a half I had satisfied myself that the substance was a mixture of calcium carbonate and sucrose. For quantitative work I was required to determine whether the sodium-bicarbonate lozenges contained 3 grains as required by the British Pharmacopœia. Pure anhydrous sodium carbonate was provided, and I was informed that 1 gram=15.43 grains. This, though straightforward, took up a fair amount of time, and I just finished in time.

DISPENSING.—In the afternoon I was set the following paper:

Lin. potass. iodid. c. sapone 2 oz. Ft. applic.

Ferri arsen.	gr. ¼
Zinci valer.	gr. iij.
Quin. sulph.	gr. j.

Ft. pil. Mitte xij. Silver.

Plumbi iodid.	gr. ij.
Ext. bellad. alc.	gr. ½
Suppos. glycerini	gr. xv.

Ft. suppos. Mitte vj.

Chloral hydrat.	gr. xv.
Resorcin.	gr. x.
Ol. ricini	ʒj.
Alcohol. 90 per cent.	℥j.

Ft. applic.

Salicin.	gr. xv.
Amm. carb.	gr. x.
Tr. cinch. co.	ʒij.
Aq. chlor. ad	℥iij.

Ft. mist. ℥ss. t.d.s.

These presented no difficulty, and I finished with half an hour to spare. Twenty-four hours later I received a notice to attend for oral examination on the following Monday. On the Monday morning I was sent first to Mr. Jackson for

CHEMISTRY.—Having explained the principle of the barometer, I was asked what affected its rise or fall. At what temperature would water boil up on a mountain and down a coal-mine? What did I understand by increased and reduced pressure? How did it affect boiling-point? How is chlorine made? Then the preparation of chloroform and chloral hydrate. What action had potassium hydrate upon the latter? How make salicylic acid and how prepare the natural acid? How is arsenic extracted? Give all tests I knew for arsenic. Why is Marsh's test not satisfactory?

PRESCRIPTION-READING came next. First I was given two calculations, then required to read two badly written prescriptions; next I had to translate English into full Latin. Having been asked about twenty doses, I was sent to

MATERIA MEDICA.—Here I was shown taraxacum, pyrethrum, gelsemium, serpentary (two varieties), hydrastis, jalap, and senna (two varieties). All were typical specimens. Having given the botanical sources, I was asked how to extract jalap resin? Why wash it? What percentage of resin should the drug contain? What is the proportion of elaterin in elaterium? How is it obtained? State the percentage of alkaloids in cinchona and opium. Which opium yields most morphine?

BOTANY, with Mr. Phillips, came next. Here I was shown fresh specimens of *Ruta graveolens*, *Hyoscyamus niger*, *Brassica alba*, and *Althæa officinalis*. Give Natural Orders. What class of plants would I include under Bryophyta? What did the spore of the moss form when it germinated? How did it reproduce itself? Did the Pteridophyta produce antheridia and archegonia? Where are the sporecases found? In what ways do gymnosperms differ from the angiosperms? Next I was asked the Natural Orders of several official plants, and finally was shown two microscopic slides (fruit of maize and a dicotyledonous stem).

PHARMACY, with Mr. Gulliver, was my last subject. First I had the following to recognise: Pv. rhei co., pv. cretæ aromat., tr. aurant., tr. card. co., tr. cannabis ind., oxymel scillæ, sapo mollis, ext. hyoscyami, and aq. laurocerasi. Name ingredients of above, and state how prepared. Among other questions were: How is lin. potass. iodid. c. sapone made? Would I use hard soap? How make aq. laurocerasi? How is its strength estimated? What indicator would I use?

I passed!

A Very Old Chestnut.

THE "Medical Press and Circular" is much concerned about the ignorance of the chemist, which it appears is brought about by the slovenliness of the doctor in the matter of prescription-writing. This slovenliness is reacting on the chemists, who are seriously considering, says our contemporary, whether or not Latin shall continue to be compulsory in the curriculum. "The doctors no longer write Latin, so why should the chemist trouble to learn it? As a test, write

Tr. scillæ.
Syr. ejusdem.

Take the slip to the nearest chemist, and it is long odds that he will tell you that he has not got the second ingredient." This really brilliant brain-wave was published on December 17; but by one of those remarkable coincidences that are so difficult to explain the identical prescription appeared just about three weeks earlier (November 27) in the "Boston Medical and Surgical Journal," the writer in which, after giving the scillæ—ejusdem example, told how in the days of his youth "it used to be taken from door to door, always being met with the rebuff, 'Haven't the second ingredient.'" We would not hint a breath of suspicion that the very smart writer in the "Medical Press" was a plagiarist as well as a purveyor of second-hand chestnuts. Oh, dear, no! But this is a censorious world, and one has to be so careful!

C. & D. Diary, 1914.

EACH copy of *The Chemist and Druggist Diary* for 1914 sent to subscribers at home and abroad contained a card coupon entitling the receiver or his deputy to compete for

Ten Guineas in Prizes.

Card 1 of the coupon is reserved for answers to the following questions in regard to the *Diary* advertisements:

1. Which is the smartest advertisement?
2. Which is the most tempting advertisement?
3. Which is the most novel advertisement?
4. Which is the most useful advertisement?
5. Which advertisement is best for business?

Card 2 is for synthetic sentences of not more than sixteen words selected from the *Diary* advertisements. Subscribers are requested to fill in either card or both and post to us as soon as possible.

TELEGRAPHIC ADDRESSES AND TELEPHONE NUMBERS.

Subscribers are requested to add to p. 195, second column—Toilet Requisites Co., Ltd. Telephone, Mayfair 3036.

BUYERS' GUIDE.

"Iodargol 362" should be entered on p. 184, fourth column, of the Buyers' Guide. It is one of Messrs. M. Brésillon & Co.'s specialities.

APPRECIATIONS.

"Congratulations on the *Diary*, and all good wishes for future prosperity of the *C. & D.*"—(68/54.)

"I consider that your article on German Galenicals is unique and extremely practical. It is the first time I have seen such in the English language, and it shows the wide scope covered by your Journal."—*Hugo Lorenz.*

"I think I have had every *Diary* issued by the *C. & D.*, and the wonder grows every year—how you are able to keep up the *interest* and the *variety*. Every year's issue seems to have some special feature of interest; the one just issued is no exception to this rule, and all who are fortunate enough to possess one will find every day some use for it. I congratulate you on a long series of successes."—*W. Bousfield.*

"We are busy, very busy, with Christmas and National Insurance work, but for the nonce these matters are laid aside, and we join in sending the Editor our united thanks for his welcome Christmas gift, the *C. & D. Diary.* We congratulate him, too, and his staff on the production of a book so full of valuable information and written in such an interesting manner, and, notwithstanding the high standard of its predecessors, we have no hesitation in pronouncing the *C. & D. Diary*, 1914, THE BEST."—*Glasgow Pharmacist* (66/62).

SYNTHETIC SENTENCES.

The subjoined have been received in competition. The adjudication has not yet been undertaken:

Read, digest, and use the *Diary*, and stand to do better in 1914 than ever before.—*C. Kemsey-Bourne* (West Bromwich).

The Chemist and Druggist Diary contains smart hints and wel(l)come products which make the window profitable.—*Thomas Siddie Gordon* (Braemar).

"Warnol," whereas so-called refreshing fruit Pears vanishing, *Diary* guarantees practical business-bringing satisfaction. Note!!!—"Capsolin" indispensable information.—*G. B. Scott* (Knowle, Bristol).

Wellcome's Hazeline, Kepler malt, photographic, tea, first-aid tabloids outfit builds permanent business; a unique merit, honour.—*Alfred J. Dias* (Bombay, India).

Wright Ecsolent Guest and better Kent every year, the most efficient Cannon to battle with.—*Peter Irvine* (Glasgow).

The Chemist and Druggist Diary will be invaluable for reference and information throughout the New Year.—*J. A. Thomas* (Cheltenham).

The Chemist and Druggist Diary will be invaluable for specialities, drugs, sundries, and all chemists' requirements.—*Joseph W. Clayton* (Stamford Hill, London, N.).

COMING EVENTS.

This section of the "C. & D." is reserved for advance notices of meetings or other events. These should be sent to the Editor by Wednesday of the week before the meetings, etc., occur.

Monday, January 5.

Society of Chemical Industry, London Section, Burlington House, Piccadilly, W., at 8 P.M. Mr. J. L. Strevens on "The Viscosity of Oils"; Mr. Lewis T. Wright on "The Oxygen Content of Gases from Roasting Pyrites"; Messrs. L. C. Jackson, Leslie McNab, and A. C. H. Rothera on "The Electrical Conductivity of Milk during its Concentration," and Mr. S. J. Johnstone on "Monazite from some new Localities."

Röntgen Society, Middlesex Hospital, Mortimer Street, London, W., at 8.15 P.M. Lantern-lecture by Dr. Jean Clunet, Paris, on "The Action of *x*-Rays on Animal Tissues."

Tuesday, January 6.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W., at 3 P.M. Professor H. H. Turner (juvenile lecture V.) on "A Voyage in Space."

Wednesday, January 7.

Pharmaceutical Society of Great Britain, 16 Bloomsbury Square, London, W.C., at 11 A.M. Council-meeting.

Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin, at 3 P.M. Council-meeting.

Royal Society of Arts, John Street, Adelphi, London, W.C., at 5 P.M. Mr. R. P. Howgrave-Graham (juvenile lecture) on "Electric Vibrations and Wireless Telegraphy."

Western Pharmacists' Association, York Room, Frascati's Restaurant, Oxford Street, London, W., at 7.30. Annual Cinderella dance and reception by the President and Mrs. J. D. Marshall. Tickets (double 2*s.* 6*d.*, single 5*s.*, including supper) from the Secretaries and members of the Committee.

Ealing Pharmacists' Association, Chamber of Commerce, 6 High Street, Ealing, W., at 9 P.M. Mr. A. E. Bailey on "The National Insurance Act."

Manchester and Salford Chemists' Assistants' Association, Clarion Café, 50A Market Street, Manchester, at 8.15 P.M. Social evening.

Nottingham Pharmaceutical Association, Victoria Station Hotel, at 8 P.M. Social meeting.

Thursday, January 8.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W., at 3 P.M. Professor H. H. Turner (juvenile lecture VI.) on "A Voyage in Space."

West Ham Association of Pharmacists, Earlham Hall, Forest Gate, London, E., at 2.30 P.M. Consideration of organisation scheme of the Pharmaceutical Society.

Mass Meeting of the Members of the Combined Local Associations of London and Middlesex, Holborn Restaurant, at 3.30 P.M. Mr. E. White, President of the Pharmaceutical Society, in the chair. Consideration of Pharmaceutical Council's scheme of organisation.

JUNIOR PHARMACY BALL.—The date for this has been fixed for March 11. The Hon. Secretary is Mr. R. R. Wilkinson, Ph.C., 23 Cromwell Place, South Kensington, S.W.

LONDON COUNTY PHARMACISTS' ASSOCIATION.—The first annual dinner is to be held in the Gordon Hall, Restaurant Frascati, London, W., on Thursday, February 5. Tickets (10*s.* 6*d.* each) may be obtained from the Secretary, Mr. G. A. Tocher, 191 Meanwood Road, Crofton Park, S.E.

CHEMISTS' BALL.—The forty-eighth annual Chemists' Ball will be held at the Whitehall Rooms, Hôtel Métropole, London, W.C., on January 14. Tickets (lady's 12*s.* 6*d.*, gentleman's 17*s.* 6*d.*, including refreshments, supper, and wine) may be had from the Stewards or Mr. Alan Francis, 22 to 30 Graham Street, City Road, London, N.

Printed for the Proprietors by SPOTTISWOODE & CO., LTD., New-street Square, and Published by the Proprietors at 42 Cannon Street, in the City of London.—*January* 3, 1914. [86]